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CONTENTS.

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ARTICLE I.

A DISCOURSE ON MENTAL PHILOSOPHY AS CONNECTED WITH MENTAL DISEASE,

Delivered before the

Massachusetts Medical Society,

IN JUNE, 1830.

BY RUFUS WYMAN, M. D.
Fellow of the Society.

Fellows of the
Massachusetts Medical Society;

You had expected, at your last meeting, an address from Dr John Gorham. From him you had hoped to receive instruction and delight. This expectation, and this hope were disappointed by his death. He was suddenly cut down in the vigor of manhood and season of usefulness. Another departed slowly, full of days, and covered with honors, and learning, and virtues of the steady growth of a hundred years. Other fellows, within the same year, went down to the grave in unusual numbers. And again during the last year, they were followed by others to be counted with the dead.

Of the dead, many were your active and useful officers. They were cultivators of sound learning, promoters of the public good, guardians of the public health, ornaments of human nature. Of these, time will not permit me even to repeat the names. But the name of Gorham is too intimately connected with

the services of this day, too much honored by the fellows of this society, too much known by the lovers of medical science, and too dear to the friends of virtue, not to be mentioned, on this occasion, with the greatest respect. I am not to attempt his eulogy. It was pronounced over his mortal remains, by his learned and distinguished friend. It issued from the pulpit, and the press. It came spontaneously, and universally from the hearts of the people of this extended city. He was learned, and wise, and good. He was, therefore, valued and loved while living; honored and respected when dead.

The nature of the change, produced in man by death, has ever been a subject of anxious inquiry. The funeral ceremonies of the ancients clearly indicate a belief in them, that their deceased friends continued to exist beyond the grave. Unless the dead had been supposed to have knowledge of the actions of the living, these ceremonies would have been a senseless show.* Whether this belief were derived from early revelation, transmitted by tradition, or from an induction from facts without us, or from a peculiar consciousness or feeling within us, it has existed among the learned, and deep thinkers of almost every age. It has generally been believed, that the substance, to which consciousness, knowledge, and feeling belong, is totally distinct from the body, which we commit to the earth, there to be decomposed and to enter into new combinations, according to chemical

* Cicero.

laws. But the determination of the question, whether consciousness, thinking, and feeling be attributes of matter or of spirit, seems not to be important in determining the question of man's future existence; for whatever substance it may be, which has existence, knowledge, and feeling here, the same may exist, and know, and feel hereafter.

The brain is admitted to be an organ, by whose agency we have connexion with the external world. By this agency sensations are produced, and volitions are executed. We have no difficulty in believing, that an impression upon an organ of sense may be transmitted to the brain; because in this case we can trace a continuity of organized matter. But that there should arise in the brain itself, thus affected, any consciousness or knowledge, is a fact so entirely distinct from, and so destitute of analogy to other affections of matter, as to indicate the existence of some other substance, possessing different properties, or susceptibilities. So in the execution of our volitions, there is for a similar reason, no difficulty in believing, that a change or motion, existing in the brain, may be transmitted to the voluntary organs. That the brain should originate voluntary motion, is to me wholly incomprehensible. But a review of the arguments, advanced by the materialists and immaterialists, would be of little interest on this occasion. Avoiding then the discussion of a question, in which so many have been bewildered, it will be sufficient to notice the *phenomena* of nature.

Powers, faculties, operations, functions and states of mind are terms which are frequently used. Nothing more is expressed by them than bare phenomena, made known to each individual by his own consciousness; and consciousness itself merely expresses a fact, which can be explained only by reference to the experience of its subject.

We learn then by experience, that man is a being that thinks and feels. Each individual being himself conscious, that he is at different times in different states, is so constituted as to infer from this fact, that others have a similar experience in regard to themselves. These different states, such as perceiving, remembering, comparing, and discerning, and also the different states in anger, joy, hatred, &c. constitute the phenomena, which are called *mental.** They are as closely connected with each other in one clearly marked group or assemblage, as the phenomena, which are common to vegetable and animal life, are connected in another. They are as distinct in their character from the organic phenomena of vegetables and animals, as the organic are from the physical. Nor are the organic actions more interesting to the physician, than should be the mental operations. There is a natural and fixed course of each, which is denominated perfect health.—'*Mens sana in corpore sano.*'

There is a difficulty, and perhaps an impossibility of defining disease of mind; yet the difficulty seems not

* See Note A.

to be greater, than in disease of body. The state of perfect health is taken as the standard for each. Every deviation from this state is, strictly speaking, a disease. The deviations in the organic functions, however, are not usually considered diseases, unless they should be attended with pain, uneasiness, or other inconvenience. Neither are the deviations in the mental states or operations of one man to be considered as amounting to disease, unless they be obviously inconsistent with the feelings, judgment, or belief of other men, who are competent judges; so that the mutual adaptation, by which one mind is fitted to act in concert with others, is destroyed. It may be objected, that there are no mental diseases. That it is an 'unphilosophical notion, which supposes an immaterial principle, the soul, sick or deranged.'* It is admitted, that an immaterial agent cannot have organic disease; because it is not composed of material organs. But that the operations, functions, or states of such an agent cannot deviate from their established course, and usual order, is contrary to obvious facts, of which, I think, every individual must at times be conscious.

In *science* men may differ—may adopt peculiar, and sometimes very singular opinions; yet they may not be accounted insane. Long after Sir Isaac Newton had proved, that the earth is flattened at its poles, the author of the Studies of Nature, contended that it is there elongated; but he was not adjudged to be a lunatic. After him Capt. Symmes believed, that it

* Combe's Phrenol. add. by Editor, p. 412. Spurzheim on Insanity, p. 101.

was neither flattened, nor elongated. He affirmed, that instead of solid earth, there was a vast hole, forming an entrance into an immense cavern, leaving the earth a mere shell, inhabited, as well on its internal, as its external surface ; yet perhaps Capt. Symmes is entitled to a judgment, as favorable as that of St Pierre.

There are mental deviations, however, which relate to the *ordinary* affairs of life and the daily experience of all, in which no man can depart much from the usual opinions, or conduct of mankind without actual derangement. It is true any man may err from want of information, or experience. But a man of sound mind, will be susceptible of the influence of evidence. He will attend to the arguments against his erroneous opinions, and be willing to correct them.

A deranged man will seldom attend to arguments, or feel the force of evidence against his opinions. He will hold fast a belief, which every rational mind would perceive to be founded on error and falsehood. False belief—delusion is, in view of criminal law, essential to insanity. Lord Erskine, in his defence of Hadfield is most full and clear on this subject, and the court unanimously assented to his exposition. James Hadfield was tried in the Court of King's Bench for shooting at the king in Drury-lane theatre. 'He imagined that he had constant intercourse with the Almighty Author of all things—that the world was coming to a conclusion, and that, like our blessed Savior, he was to sacrifice himself for its salvation, and because he would not be guilty of suicide, though

called upon by the imperious voice of heaven, he wished that by the appearance of crime, that his life might be taken from him by others.' His delusion consisted in his belief, that he was under a special command of God—in his belief, that the end of the world was at hand, and in his further belief, that his death would procure its salvation.

In this city, a man believed himself to be King Charles II. He wore a long beard, as was the fashion in the days of that prince. He spoke in the royal style, and required of all persons to address him in language suited to the royal presence. He assumed great dignity of manner, and deemed the touching of his beard the greatest insult. These singularities in conduct did not constitute his derangement. They were indeed proofs of it. His belief, that he was a king, was his delusion. His actions were perfectly consistent with his belief. It would have been unreasonable in him to have conducted differently. His belief, founded on error, did as really govern his conduct, as does the belief of other men, founded on truth, govern theirs.

Last winter an intelligent gentleman believed, that various evil minded persons, who were strangers to him, had often attacked him in the streets with chlorine gas, and had contrived to throw it into his chamber; that it produced pains in his head, and soreness of his nose. He made the doors of his house doubly secure with additional bolts, and caulked the windows, and kept pledgets of lint in his nostrils and ears. This man

was the only proper judge of the existence of the pains and soreness. They were feelings, of which he alone could be conscious. But in assigning causes of these feelings, others were equally competent judges; yet contrary to the unanimous opinion of numerous friends, in whom he had great confidence, he continued in the same belief, and frequently and secretly changed his lodgings to escape the annoyance. He said to his friends, 'I know that it appears to you unreasonable, and imaginary, but to me it is a reality; to you it is a proof of insanity, to me it is a source of suffering.'

Lawyers may trace insanity to delusion, and proof of delusion may always be necessary in courts of criminal law to establish the existence of actual derangement. But physicians should extend their inquiries further, and endeavor to ascertain the difference between a state of delusion, and a state of sound mind—to ascertain how a state of delusion or false belief is produced. This inquiry is not less important in the investigation of mental diseases, than is the accurate discrimination of the healthy and disordered states of the organic functions in the investigation of their diseases. A knowledge of the mental functions in health can be derived only from the history of mental operations. This history of facts, with the laws and principles deduced therefrom by the aid of a sound logic, is called the *philosophy of mind.*

Mental philosophy, then, is an indispensable study of an accomplished physician. Such are the mutual dependencies and influences of the mental and organic

functions, that diseases of either cannot be well treated without a knowledge of both.* But I would not go back to the vagaries of the ancient metaphysicians. It is sufficient to begin with Locke, and proceed with Brown, Stewart, and Reid. If the reading be confined to a single volume, it may be Payne's Elements of Mental and Moral Science. These writers have been guided by the precepts of Bacon. They have taken facts and sought for their connexions and dependencies. They have labored to become simply the interpreters of nature. Whoever will turn his thoughts within him, and attend to the operations or different states of his own mind, will find in their works a record of mental phenomena, of which his own experience will afford the fullest confirmation. An acquaintance with their writings will fix the philosophical import of many terms in popular and scientific use, concerning which there is much confusion and ambiguity in medical books. The *faculties* of the mind, for example, are usually considered as distinct agents. This is erroneous. The faculties are not parts of the mind. The mind cannot be divided. There is but one agent acting in different ways, or performing different acts. This is the doctrine of the immortal Essay Concerning Human Understanding.† The same doctrine is taught by various authors. Mr Locke, speaking of the understanding and will, says the word faculties must not be 'supposed, (as I suspect it has

* See Note B. † B. 2, ch. 21, § 6.

been,) to stand for some real beings in the soul, that performed those actions of understanding and volition. For when we say the will is the commanding and superior faculty of the soul, that it is or is not free, that it determines the inferior faculties, that it follows the dictates of the understanding, &c. though these and the like expressions, by those who carefully attend to their own ideas, and conduct their thoughts more by the evidence of things, than by the sound of words, may be understood in a clear and distinct sense; yet I suspect, I say, that this way of speaking of the faculties has misled many into a confused notion of so many distinct agents in us which had their several provinces and authorities, and did command, obey, and perform several actions as so many distinct beings. Which has been no small occasion of wrangling, obscurity, and uncertainty in questions relating to them.'

The very learned Dr Good* says of the faculties, 'we sometimes, however, are apt to speak of them as distinct and separate existences from the mind, or as possessing a sort of independent entity, and as controlling one another by their individual authorities.' Again, 'The faculties of the mind are so many powers.' 'But the power to do one action is not operated upon by the power to do another action.' Yet he says, under the genus Ecphronia, and not very consistently, 'a sound mind supposes an existence of all the mind's feelings and intellectual powers in a state of vigor, and under the *subordination* of the judgment, which

* Study of Medicine, Cooper's edition, Vol. IV. p. 45.

is designed by nature to be the *governing or controlling* principle.'*

That the study of mental philosophy is a necessary part of a medical education, will be more apparent by attending to the description of insanity by any approved author. Diseases, affecting the intellect, are placed by Dr Good in his fourth class, under the first order, Phrenica, in which they are thus described; 'Error, perversion, or debility of one or more of the mental faculties.' The import of these terms must be understood, or the description will be of no use. From this description we learn first, that there are several mental faculties. Then arises the inquiry, what is their number, and what is the character of each? We next learn, that there may be error, or perversion of one or more of these faculties. Then comes another inquiry, what is their sound state? for unless this can be ascertained, it will be impossible to know when there is error or perversion. When we have acquired accurate knowledge of the sound state, we can, by comparing the two states, learn in what respects the diseased states deviate from a state of health.

The same learned author proceeds in his description, and remarks, under the genus Ecphronia, or insanity, that there is 'diseased perception with little derangement of the judgment,' &c. The medical student would certainly inquire, what are the mental functions or states, intended by perception and judg-

* Idem. p. 51.

ment. Unless he do this, he cannot understand the description. Dugald Stewart* observes, that 'in ordinary language we apply the same word, *perception*, to the knowledge, which we have by our senses, of external objects, and to our knowledge of speculative truth; and yet an author would be justly censured who should treat of these two operations of the mind under the same article of perception.' In the definite and philosophical use of the term, perception denotes that mental function, which refers to an external object as its cause, the impression made upon an organ of sensation. Thus when we have a certain impression upon the ear, followed by a sensation, we refer it to a man cutting wood with an axe. But there is another use of the same term, perception,† when we speak of the perception of the agreement or disagreement of two ideas, or of the perception of the relation of the successive steps of a geometrical demonstration, &c. Dr Good has adopted both uses of this word in the proem to his fourth class.‡ In his description of the genus Ecphronia of the same class, I think, it is nowhere pointed out in which of these senses, or in what sense it is to be understood.

Writers on mental philosophy arrange the mental operations or states under two heads, one of which regards our knowledge, the other our feelings. The former includes the functions of intellect, or the intel-

* Elements, Vol. I. ch. 3.

† Consciousness, or discernment, is the proper term.

‡ See also Dr Good's Lucret. De Rerum Natura, Vol. II. p. 110.

lectual powers or states. The latter includes the affections, emotions or passions, or the pathetical powers or states. Pope, in his Essay on Man, has very happily pointed out this distinction.

> "Two principles in human nature reign,
> Self-love [passion] to urge, and reason to restrain."
> "Man but for that no action could attend,
> And but for this were active to no end."
> "On life's vast ocean diversely we sail,
> Reason the card, but passion is the gale."
> "Love, hope and joy, fair pleasure's smiling train;
> Hate, fear and grief, the family of pain.
> These, mixt with art, and to due bounds confined,
> Make and maintain the balance of the mind."

This division of the mental states or functions has suggested a corresponding division of mental diseases—diseases of the intellect and diseases of the passions.* The same division is the basis of Dr Good's arrangement of the mental disorders, which is clear and comprehensive, and should be thoroughly studied. He has, however, made many subdivisions, more important, perhaps, to a systematic work, than to the treatment of mental diseases.

In diseases of the intellectual functions there may be perversion, diminution, or augmentation of one or more of the intellectual states or faculties.

1. It has already been observed, that *delusion* or *false belief* exists in all cases of insanity, in the legal meaning of the term. True belief is founded on

* The term *passion* is here used in an extended sense, including *emotions* and *affections* of various authors.

some intuitive knowledge, some original principles, some self-evident truths, from which, by the process of reasoning, conclusions are derived, to which assent is given. Thus my belief, that the sun will rise again, is an inference from a confidence in the *permanency* of the order of nature. My belief of the existence of an external world is derived from my *sensations*. My belief, that Dr Holyoke lived in Salem, A. D. 1828, arises from my confidence in the evidence of *memory*. My belief, that he was then one hundred years old, arose from my confidence in *testimony*.

If there be perversion in the original principles of belief, all consequential belief will be false. If these foundations of intellect be overturned, the superstructure will be in ruins. The physician and patient cannot meet on common ground. Reasoning will be vain. They are at variance about first principles, which *are not susceptible of proof*, and *do not admit of argument*. Insane persons usually reason right; but the conclusions are wrong, because the premises are false.

There may be perversion not only in regard to fundamental principles of belief, but there may also be error, in a degree amounting to disease in the faculties exercised in reasoning from these principles. Inferences, which every sound mind would discover to be false, are sometimes made by lunatics from premises, which are true.

2. That there is often a *diminution* of intellectual power, in a degree amounting to disease, comes within

the experience of some, and the observation of all. The memory may be imperfect, the agreement or disagreement between ideas may not be discerned, or the mental operations may be slow and unequal.

3. An *augmentation* of one or more of the intellectual powers is another deviation from a state of sound mind. That it is a disease, may perhaps be denied; and if it be a disease, many might wish to be sick. The disease consists, not in a proportional and permanent augmentation of each faculty, but in the temporary excess of vigor and activity of one or more of the faculties above their just proportion. In some, the quickness and extent of the memory is increased; in some, the imagination is too active; in some, there is increased talent of ridicule and sarcasm; in some, there is a hurry and quickness in all the intellectual operations.

The augmentation of intellectual power is sometimes sudden and wonderful. A gentleman of moderate mental endowments, who played an indifferent game at chess, became deranged in 1819. There was at first some doubt as to the reality of his insanity. On a certain evening he came from his room with a blanket over his shoulders, in the character of an Indian chief; his head elevated, his body very erect, his step long and firm. His whole manner had an air of dignity, and conscious superiority. He took his seat at a table, upon which was a chess-board, and played several games with several persons, by whom he had often, if not usually, been beaten.

But he was now conqueror in almost every game. He played with a skill and quickness, never approached by him before or afterwards. All doubt of his insanity was now removed in the judgment of his physician. That judgment was afterward fully confirmed, by a complete developement of the disease.

As there is disease of intellect, without disease of the passions, so there may be disease of the passions, without apparent disease of intellect.* In diseases of the pathetical states or functions, there may be *exaltation* or *depression* of one or more of the passions. These diseases are more to be dreaded than any others, to which man is liable. The passions, being the source of all his actions, and continually demanding of the intellectual powers the means of their gratification, if they be in excess, they urge to action beyond the bounds of reason, and the subject of them is driven and hurried on to the perpetration of the most atrocious deeds. Here the law sees no delusion, and holds the miserable offender accountable for his acts. This, perhaps, is the only practicable rule, consistent with the safety of society.

The physician, however, must take a different view of these deplorable cases. He must discard the policy of the law, and attend to the voice of humanity and of truth. It is true, the passions are under the control of every man in a state of sound mind. Whoever possesses this power of control, and neglects to

* Manie sans délire. Pinel § 64.

exercise it, is responsible for deeds arising from his negligence. But the man, who has lost this power by the *exaltation* of one or more of the passions, who does not possess that self-control, which belongs to every man of sound mind, labors under a mental *defect*,—a deviation, which as truly constitutes a disease, as does any deviation from a state of health in the intellectual or vital functions. If the passions are all in due proportion, they are productive of the good, for which our Creator designed them. But when one or more of them is exalted, they will be followed by mental disturbance. Such may be their influence upon the intellectual powers, that what is right, or what is wrong may not be discerned; or the feeling of obligation to avoid the latter and pursue the former may be overpowered, or lost in the *diseased desire* of gratification. There may be an extravagance of feeling, as there was in the days of chivalry, or the crusades, or has been in periods of religious or political excitement, which may obscure the intellectual vision, and lead the blinded enthusiast into the greatest absurdities.

But there is another state of mind, in which one or more of the passions are *depressed*, and evince a defect of vigor and activity. There are persons, who are almost destitute of friendship, love, or hope, and nearly all the kind and benevolent affections. Others are scarcely susceptible of hatred, envy, or revenge, &c. And again, there are some, in whom there is a kind of general apathy, who feel no interest in the

affairs of life, or in the happiness of themselves or of others. These are deviations from a sound state, and fall within the conditions of mental disease. They are not the natural and original states of the individual, but temporary changes induced by particular causes.

Exaltation, and depression of passion, are sometimes manifested alternately in the same individual. * * has been for several years subject to alternations of these states, without disease of the intellectual powers. During the state of depression he talks little—scarcely answers questions—goes to bed early—sleeps well—rises late—takes food regularly—is indifferent about his dress—refuses to walk, or ride, or to attend church—writes no letters—reads no newspapers—discovers no interest in any person or kind of business. He is not anxious, or distressed on any subject—is perfectly quiet and inoffensive. After being depressed from two to five weeks, he gradually becomes more active, gay, and full of business. As a first change, he begins to smile, and answer questions; then to sit up later, sleep less and rise earlier—walks, and rides when requested. In a few days, he begins to converse freely, read newspapers, and play at chess. Next he calls for his best clothes—is anxious to attend church, visit every where, and see every body—plans voyages—is full of business—writes letters to all parts of the United States, to England, France, Holland, &c.—becomes gay—dances, sings—is irrascible—offended when opposed—passionate, and violent—tears his clothes—breaks windows,

swears, strikes, kicks, bites, dashes drinks in the faces of attendants, and sometimes says, 'I would send you to hell, if I could;' but instantly, sensible of the inhumanity of his wishes, and becoming calm, adds, with good feeling, 'But I would remove you to heaven in one minute.' The paroxysms of passion, in various degrees, are repeated many times in a day, from the most trifling causes, and without malice. In this case, the changes from depression to exaltation of passion are usually gradual—often sudden, and sometimes instantaneous. The paroxysms are, almost universally, free from any apparent disease of the intellectual powers. His letters are well written, his plans of voyages are judicious, and the whole discovers an intimate knowledge of business. When the transitions are gradual, he appears, during the intervals, quite well for several weeks, and is a kind hearted, intelligent, agreeable man.

To exhibit clear and exact views of an insane mind, it seemed necessary to consider separately diseases of the intellect, and diseases of the passions; yet they are seldom so observed in fact. During health the intellect may discover some supposed good, real or imaginary, and then will arise the desire to obtain it; or it may detect some supposed evil, real or imaginary, and then will arise the desire to avoid it, and, perhaps, to punish its author. Or one or more of the passions may become excited, and seek to be gratified, and then the intellect is to devise the means to accomplish the end. These relations continue in a state of *disease*,

the disordered intellect suggesting opportunities for the indulgence of the passions, or the excited passions, in their turn, prompting the intellect to provide for their gratification. Hence the most common form of insanity is a combination of disordered passions, and disordered intellect, in variety and gradations almost infinite.

Such, too, is the connexion between the mental operations and various organic functions, that diseases of the one frequently induce diseases of the other. Hence insanity arising from moral causes, as jealousy, anger, remorse, unexpected adversity or prosperity, soon produces disease in some of the abdominal viscera. Hence, too, diseases of the alimentary tube, the liver, and the uterus, often produce mental diseases.

It has been my object to notice some of the connexions between sound mind and mental disease, that I might suggest for your future consideration the importance of mental philosophy, as a necessary part of a medical education. It is the number and extent of the mental powers of man, that constitutes the vast difference between him and every other terrestrial being. It is mind, that traverses the ocean, and converts a wilderness into fruitful fields. It was the mind of Newton, which explored the heavens, weighed the planets, and measured their distances. It was the mind of La Place, which again journeyed through the celestial regions, and returned with new proofs of the power and wisdom of the creator. But in the most exalted views of the mind of man, there appears enough

of frailty to teach him humility. It is subject to disease. Its powers may be prostrated in a few uneasy days. In a single moment, the noblest intellect may be reduced to the humble condition of the most ordinary mind. Such changes are obvious to all, and leave no one in doubt of their nature. It it not usual, however, that the subversion of the mind is the work of an hour, or a day. The attacks of insanity are commonly gradual, and in passing from a state of sound mind to a state of derangement, the changes are almost imperceptible.

'Such thin partitions do the bounds divide,' that it may be difficult to form a satisfactory opinion, whether an individual be, or be not deranged. In determining a question so important to him, the first inquiry should certainly be to ascertain the actual states of mind, as manifested by the countenance, conversation, and conduct. But this knowledge will be of little use, unless it be compared with some standard—the standard of sound mind.

The medical student is required to learn of chemistry and natural philosophy the laws of inanimate matter—to toil, at the risk of life, in learning the structure of the body, and the functions of its organs; yet it is only *incidentally*, that the functions of the mind become an object of his attention. That, which acquires all knowledge, may itself remain unknown. A knowledge of the faculties of the human mind, and the laws of its operations, can be acquired by no man except by deep attention to the mental changes, of

which he is conscious. He must find within himself the facts and experiments, from which alone he can deduce the principles of mental science. In making these deductions, he will discover a new world, beautiful and wonderful, 'the image of God.'

Mental philosophy is interesting to physicians, as men of science. It will repay their labors, as curious men, seeking amusement; as students of nature, of good morals, and of sound religion. It is also interesting to them as a profession. No where does it cast a clearer or a stronger light, than it throws upon the darkness of a disordered mind. In cases of alleged or pretended insanity, physicians are frequently called to give opinions, upon which the verdict of a jury or the judgment of a court may mainly depend. Here rests upon the medical witness a most solemn responsibility. The decision may involve consequences, more important to individuals and the community, than the treatment of the disease. It may extend to the disposition of property, validity of contracts, responsibility for crimes, even to the jeopardy of life. Before another anniversary of this society, some of its fellows may be involved in a calamity, by which property, or character, or life, may turn upon the question of sanity or insanity. It may be that this question will be decided upon testimony, which some of you may be required to give—and the correctness of this testimony may depend upon a correct knowledge of sound mind.

Note A.—Page 6.

So various are the classifications of the functions of animated beings, that it is impossible to speak of them intelligibly without some explanation. In the preceding discourse the following arrangement has been observed.

VITAL FUNCTIONS—functions of living or animated beings.

I. Organic Functions—functions of all organs, whether of vegetables or of animals.

II. Mental Functions—all mental changes or states; as knowing or being conscious.

Intellectual—perceiving, remembering, &c.

Pathetical—joy, grief—hope, fear—love, hatred, &c.

1. Remark. Vegetables have only organic functions. Animals have both organic and mental functions.

2. Remark. It must be obvious to every man, who attends to his thoughts, that *knowledge* or *consciousness*, arising from changes in the material world, is totally different from the changes, *from* which it arises. They are followed by the state of being conscious, and are, in a certain sense, the causes of that state.

3. Remark. The modern doctrine of two lives in one being, is not more simple, than the old doctrine of one being, composed of a living body and a thinking soul. The distinction between the organs of '*animal life*' and of '*organic life*,' as stated by Bichat, does not seem to be well founded. Of the former he considers the organs to be double, possessing 'symmetry of external forms;' of the latter to be single, having 'irregularity of external forms.' The following enumeration of double and of single organs will show, that the distinction, as contended for, does not exist in man.

I. Organs, which are double, consisting of two analogous parts, viz.

The brain and nearly all the nerves—the eyes, ears and nostrils—the tongue and chin, divided by a medial line—the fingers and toes of one side, corresponding with those of the other—the lungs, heart, and nearly all the arteries and veins—the kidneys and ureters, united in the bladder—the prostrate gland—the testicles, vasa defferentia and vesiculæ seminales—the ovaria and fallopian tubes, united in the uterus—the parotid, submaxillary, axillary and inguinal glands—nearly all the bones and muscles.

II. Organs, which are single, viz. the œsophagus, stomach, intestines, liver, pancreas and spleen. Perhaps the uterus and bladder may be considered either as single organs, or as the union and continuation of double organs.

Note B.—Page 10.

The treatment of insanity chiefly depends upon the connexion between the mind and body. If there be inflammation of the brain, or its membranes, it is to be treated as inflammation of those parts. If there be other organic disease, whether of structure or of function, in any part of the body, medical treatment will be required. But in mental disorders, without symptoms of organic disease, a judicious moral management is more successful. It should afford agreeable occupation. It should engage the mind, and exercise the body; as swinging, riding, walking, sewing, embroidery, bowling, gardening, mechanic arts; to which may be added reading, writing, conversation, &c. the whole to be performed with order

and regularity. Even the taking of food, retiring to bed, rising in the morning, &c. at stated times, and conforming to stated rules in almost everything, is a most salutary discipline. It requires, however, constant attention and vigilance, with the greatest kindness ~~and attention~~ in the attendants upon a lunatic. Moral treatment is indispensable, even in cases arising from organic disease.

In regard to medical treatment, I believe, that purging, bleeding, low diet, &c. have been adopted with little discrimination. They are to be resorted to only when there is organic disease, which requires the '*reducing plan.*' But these remedies, especially in debilitated subjects, are seldom useful in relieving mental disease. They are usually injurious, and frequently fatal. It is undoubtedly true, that impressions upon the alimentary canal by purging or vomiting, and upon the skin of the extremities by blistering, are useful in chronic cases of mental disorders. But these remedies must be suited to the strength and general health of the patient.

ARTICLE II.

ON A

VARIETY OF PARURIA RETENTIONIS

PECULIAR TO FEMALES.

BY JAMES JACKSON, M. D.
President of the Society.

In the second year of my practice I was called to Mrs A., whom I found in great distress, the source of which was not at once apparent. After a full inquiry into the state of all the functions, I at length discovered that the immediate difficulty was a suppression of the urine. The history was briefly this. A few days previous the patient had walked over some marshy ground while menstruating. She returned home with her feet wet, and found that the catamenia had stopped. Shortly she began to feel sick, had distress in the epigastrium with nausea and vomiting, and after a time pain in the right side of the thorax. With these symptoms came on strangury, and at last an entire suppression of urine. This suppression had lasted forty eight hours when I saw the patient. For present relief I

introduced a catheter and a large quantity of urine was expelled with sufficient force. The other symptoms yielded after a few days to cathartics, vesication, etc.; but the retention of urine continued constantly for six months, during which time I introduced the catheter twice a day. It afterwards continued for some years with less constancy, but so that it was necessary to use the catheter occasionally.

In the beginning the urethra was somewhat swollen, so as to feel more firm and larger than natural, but there was not any obstruction to the passage of the catheter. There was, however, some pain in the introduction of it. There was severe pain at other times in the parts, which the patient compared to a sword running up into her. Gradually the bladder lost some of its power of expulsion, so that external pressure was necessary to evacuate the organ thoroughly. The expulsion was often attended by strong bearing down of the uterus and great pain. In such cases some benefit was derived from pressing the fingers firmly against the uterus. This both facilitated the evacuation and lessened the suffering. The uterus, did not, however, so act as to present any mechanical obstacle to the evacuation. Nor was I able at all to satisfy myself in that case, nor have I been in any subsequent one, to what cause the retention was owing. Yet I had all the opportunity for this purpose which I could have in a living subject. The return of the catamenia after some weeks did not afford any relief, and for the time even aggravated the sufferings.

In this case some other symptoms also occurred, one of which I have often noticed since. This was a swelling just above one of the groins within the parietes of the abdomen. The swelling was not exactly defined, was somewhat painful and quite tender to the touch. The symptoms which have been less common were referable to some collection of matter in or about the uterus. This occurred several times in Mrs A. First, she suffered great pain in the pelvis for some days, and then there took place a sudden discharge of bloody matter by the vagina, with relief.

At the time when this first case happened, I sought assistance from my elder brethren, but did not find them acquainted with the disease. I consulted many books also, but with as little advantage. Since that time I have never seen the disease described, except in the New England Journal of Medicine, and that by persons who had derived their knowledge of it from me, in conversation or in my lectures. Until the Massachusetts General Hospital was opened, I very rarely saw any cases to be compared as to severity with the one I have described. Among the patients there, especially in young women living at service, I have had many severe cases. But both there and elsewhere, I have frequently met with more mild cases of disease from the same cause, in which strangury has occurred without retention of urine. These milder cases are I am persuaded very frequent every where, but are overlooked in consequence of the unwillingness of the patients to state the real symptoms. Even at the Hos-

pital, in repeated instances, the patients have denied for a long time that there was any difficulty as to the urine. On this account I think it may be useful to describe the disease as it shows itself in the beginning.

As already intimated in most cases, I have seen this disease in maid-servants. I have been called by the mistress in such instances. She has stated that for several days, perhaps a week or a fortnight, the girl has appeared sick, yet has been unwilling to call herself so; that she has said she has had a cold only, and has been desirous to do her work, but that she has evidently been unfit to do it, and sometimes has been quite unable. On inquiry it has further appeared, that she had seemed dull for a day or more and then had begun to be more seriously sick for a few hours or a night; but had rallied a little and then again fallen off. At an early period there had been vomiting with loss of appetite, perhaps with much distress at the stomach, occasionally with the common symptoms of hysteria. To this in many cases has been added pain in the side, sometimes severe, so as to be thought the whole disease; and this, perhaps, has been attended with cough. Headache, pain in the back, chills, flushes, etc., have also occurred, with more or less severity. In most cases these symptoms are related with a degree of reluctance; the patient is unwilling to answer questions, and seems not to expect any relief from a physician. Sometimes she avoids the look of the physician and is fond of covering her head with the bed-clothes, if on the bed.

Having long since learnt what these appearances indicated, I have in such cases made inquiries as to the catamenia and as to the urinary evacuation. Sometimes the patient has been gratified by these inquiries and become more communicative, perceiving that there was now some chance for relief. But commonly there has been a remarkable aversion to disclose the truth even to females. This circumstance is almost as characteristic of the disease as the fallacious hope of recovery in consumption. The effect is an aggravation and prolongation of the suffering from a neglect of its real cause. When, however, the truth is ascertained it amounts to this;—that on the first or second day of the occurrence of the menses the girl has been engaged in washing or in some other work, in which she has wet her feet; that in this way she has caused a sudden suppression of her menses; that a frequent desire to pass urine, but pain and difficulty in the discharge, have ensued; that more or less constitutional disturbance has accompanied or followed this dysuria; and, especially in severe cases, that vomiting and a pleuritic pain in the right side have occurred, and to bystanders these have appeared to constitute the essential disease. In many cases, no doubt, these difficulties have subsided spontaneously and without being very severe. In how large a proportion of all the cases, in which menstruation is interrupted, they are produced, cannot be easily ascertained. That they are not always I well know. But that they often occur and are concealed for a long time I also know.

It is particularly to be noted, that the recurrence of the catamenia does not relieve this disease; at least that it does not necessarily. I have known the disease to come on when the stoppage has lasted less than twenty-four hours. In some cases, however, amenorrhea ensues for a longer or shorter period; and in these the restoration of the sexual discharge does not necessarily give relief, though it sometimes may do it.

Those who have once been affected with this dysuria are liable to its recurrence, not only from the same cause, but from exposure to cold or to hardship of different kinds. In some instances it becomes a chronic affection, mitigated much at times, but with occasional returns of great severity. Of this kind mostly are the cases we have had at the hospital. In these cases the general health is not always so much disturbed as might be anticipated. But at times the patient will lose her appetite, perhaps vomit and will presently appear in great distress or violent pain. This will be called colic or a spasmodic disease, or by some other name. Usually constipation will accompany the attack. If the real difficulty is not discovered the patient will pass no urine for twenty-four or forty-eight hours, or even longer, as she will subsequently avow.

Though the sufferings attending the disease which I have described, are often extremely severe, I have never known the disease to prove fatal. I intended to examine the body of my first patient, Mrs. A., should

I survive her. But she died several years since of another disease in a neighboring town. Probably others of my patients must have died since I began to observe the disease, but none under my observation. I cannot, therefore, throw any light upon the subject from morbid anatomy. That there takes place some kind of inflammation in the pelvic visera, and that this varies in its extent, as well as in its severity, in different cases, I am well persuaded. But after much thought upon the subject I am not disposed to offer any more precise opinion as to the proximate cause, or real morbid affection existing in the disease.

In respect to the treatment, experience justifies me in giving a much more decided opinion. Since the first case I saw I have never failed to afford decided relief in the recent attacks; and in chronic cases I have failed in a very few instances to remove all of the urgent and distressing symptoms. But in these last the disease is very easily reproduced, and more prudence is therefore required than the patients have always possessed. One evil of negligence it has been very difficult to impress sufficiently on some patients. That is, the injury to the bladder from a long retention of urine. If this has been allowed to happen often the patient will always be liable to difficulty upon occasions comparatively slight. Thus the retention of urine for a few hours in such a case will present an obstacle, which the weakened muscular coat of the bladder will be unable to overcome. Unfortunately the evil increases itself. It might always be

guarded against if the patient would learn to introduce a catheter for herself. Some few have done so; but most who have tried, have failed to succeed; and they have often irritated the parts very much by their efforts.

In *recent cases*, bleeding, both general and local might be employed with propriety, and probably with entire relief. But the patients are not willing at first to regard the disease as sufficiently serious for such a remedy; and as I have succeeded without it, I have not urged it. The method I have pursued has been, first to purge freely with calomel and such other cathartics as the stomach would bear; second, when the nausea has not forbid to prescribe free potations of watery drinks, with mucilaginous substances; third, to administer mercurials in alterative doses until the mouth has been a little sore, if the patient has not been relieved short of this; and fourth, to vesicate over the hypogastric region in all severe cases and on the side for the pleuritic pain. These remedies have succeeded invariably, as I believe; nor have they all been required in every case. I used vesication with caution at first, but have not found any serious evil from the effect of cantharides on the bladder. Indeed, when distention has lessened the expulsive power, there is not any remedy more signally useful.

In the *chronic cases* I have relied on the same remedies, adapting them to the urgency of the case. Daily attention to the state of the bowels has been necessary to guard against aggravation of the disease.

But my principal reliance has been on mercurials and vesication. It has, however, been my constant care to prevent the distention of the bladder, in cases of retention of urine. For this purpose the catheter has been used at least twice a day. In some rare instances these means, when faithfully employed, have been insufficient. In them I have tried, with permanent advantage, as well as temporary relief, preparations of tobacco. I have used principally the wine of tobacco; sometimes administering it in an enema, and sometimes by the mouth. The last is the most convenient mode, and not attended by more nausea than the other. From twenty to thirty drops, administered two or three times a day, is usually sufficient. It should not be continued in nauseating doses.

The particular circumstances of each case will often suggest subordinate remedies, adapted to the relief of accidents which may occur.

ARTICLE III.

REMARKS ON THE SORE MOUTH OF NURSING WOMEN.

BY E. HALE, JR. M. D.
Fellow of the Society.

Nursing women are often subject to a sore mouth of a peculiar character, which I have not seen adequately described. It begins with a hard pimple upon the edge of the tongue, generally at a little distance from the tip, which is very red and extremely painful. In many mild cases, this continues a few days and disappears, and then returns again at irregular intervals. Those who have been frequently subject to these attacks, are aware of their approach by a loss of the sense of taste, and especially by being insensible to the taste of salt, accompanied by other peculiar sensations in the mouth, which they seem at a loss to describe.

This is the mildest form of the disease, and unless it is under the influence of remedies, it does not long continue in so mild a state. After a few returns, and

not unfrequently at the first attack, the central spot ulcerates. The ulcer is deep, with hard elevated edges, surrounded by an inflamed circle, and is still exquisitely painful. Several of these ulcers form upon the soft parts of the mouth, that is, upon the tongue and the inside of the cheeks, rarely if ever upon the gums or the palate, and although each ulcer is of small extent, the inflammation around them spreads over nearly or quite the whole mouth. The tongue is very red and smooth. The salivary glands are excited, so that there is a considerable salivation. The inflammation next extends to the fauces, and then to the mucous coat of the œsophagus, stomach and intestines, accompanied by diarrhœa. The soreness of the mouth is not diminished by the extension of the inflammation to other parts. The ulcerations continue to increase in depth, though their extent of surface is not great. I have seen a considerable loss of substance in the edge of the tongue, which has been only partially supplied when the ulcer healed, leaving the edge of the organ still jagged and uneven. Throughout the whole of the disease the appetite is good, but the pain from taking food is so great that nothing but the mildest liquids can be borne. Although the patient becomes greatly emaciated, and her strength wastes rapidly, the secretion of milk is little if at all diminished, and the child continues vigorous and healthy.

In any stage of the disease, if the child be taken from the breast, the affection of the mouth heals with

great rapidity. The same is true in the earlier part of the disease, of the diarrhœa and other sympathetic affections; and indeed it generally is so when the weaning takes place at any period. In one instance, (it was the first case that came under my observation,) where the nursing was prolonged until the patient's strength was much exhausted, she was not materially benefited by weaning the child. The mouth healed, but the diarrhœa continued. The powers of the digestive organs were so prostrated that she could not take food sufficient to nourish her, and after a long period of debility and suffering, she died,—more from inanition, than from the violence of any constitutional disease. I am not now able to form an opinion decisively, whether this woman would probably have recovered if the child had been taken away earlier; but am not without some apprehensions that her life was endangered by nursing it so long. In other instances, I have seen patients recover from a state of extreme weakness, produced by pain and diarrhœa, accompanied by the inability to take food, with a rapidity altogether surprising; and this without any material change of remedies to account for the change of health, except in the mere circumstance of weaning the child. In the following case the connexion of the disease with nursing was very strikingly exhibited.

Mrs H. had suffered considerably with sore mouth while nursing her first child, but not so severely as to induce her to wean it prematurely on this account.

After the birth of her second child, she passed the puerperal state without any peculiar difficulty, but had not fully recovered her strength before the sore mouth appeared. It ran rapidly through the stages I have described, in spite of any remedy I could use, and in a few weeks it seemed evident that nothing but weaning the child could save her life. She yielded to this necessity with great reluctance; but after some delay, which I thought exceedingly dangerous, such was her state of exhaustion, she took the child from the breast to bring up by hand, being too poor to procure a nurse for it. She recovered with such rapidity that in a week she was able to walk out, and I discontinued my visits. In about another fortnight I was called again, and found her still more reduced than at any time before. On inquiry it appeared that soon after I had left her, she had been persuaded by some injudicious friends, to apply the child again to the breast. The milk, which had not wholly disappeared, returned freely, and she had now nursed the child a fortnight. In the mean time the sore mouth and the diarrhoea had returned with more than their former violence; and her whole appearance indicated extreme debility and exhaustion. The child was now weaned in good earnest. She recovered however much more slowly than before; and it was not until after spending some weeks in the country that her strength was fully restored.

The following year, after the birth of another child, this patient was again affected in the same manner.

For several weeks we were able to keep the disease in check, by a constant exhibition of remedies, with a careful diet; but it then increased to such a degree as to render it necessary to wean the child. She recovered her health in a very short time, and has since suffered no relapse.

In one or two other instances I have found weaning necessary. But in many more cases the disease has yielded to treatment without it. The patient does not indeed so entirely recover as to be wholly free from any tendency to the complaint. On the contrary, the mouth is very ready to become sore, from slight occasional causes,—from fatigue, or from accidental indigestion. But in general these attacks are soon checked, and are followed by intervals of tolerably good health.

The circumstances which require that the nursing should be suspended, are not merely the degree of soreness of the mouth; but the violence of the diarrhœa, and the extent to which the general constitution suffers, and more especially the inefficacy of remedies to arrest the disease, while that function continues to be performed. The length of time during which it may be proper to wait in order to ascertain the efficacy or inefficiency of remedies must of course vary according to the urgency of the symptoms. The necessity of weaning is an evil to be avoided if possible. Not only is the patient subjected to the inconvenience and expense of a wet nurse, or of bringing up her child by hand, either of which are far from

being trifling, but she is left with the strong probability of having to undergo the same evils again, at no great distance of time.

So far as my observation extends, there is always a disposition to a recurrence of the disease in every subsequent period of nursing. And, although my experience has not been sufficiently extensive to be decisive on this point, yet this disposition to recurrence seems to be stronger in those cases where the child has been weaned on account of the disease than in others. The reason may be only that in these cases there is less opportunity for the constitution to regain its usual habits of health before another pregnancy. But be the explanation as it may, if the fact should prove to be so, it becomes a strong reason for not resorting to weaning, until the necessity for it is quite manifest. At the same time we must be on our guard not to suffer the exhaustion and debility to proceed so far as fatally to undermine the constitution. It is obvious that if there is any predisposition to phthisis, or other constitutional disease, the debility must be regarded with more solicitude and apprehension than in a habit generally vigorous and sound.

This kind of sore mouth is also sometimes seen during pregnancy. But according to my observation, it never appears in a first pregnancy, and when the sore mouth appears in a subsequent pregnancy, the disease does not extend itself into the other train of symptoms, which I have described. I have never seen it in a pregnant woman, unless she had before suf-

fered from it while nursing, and it has in that state yielded readily to remedies, without any considerable constitutional irritation.

Treatment. In the treatment of this affection, local remedies are of very little service. I have seen some little benefit from the use of a decoction of the leaves of the black currant; but in general, mouth-washes and gargles avail so little as scarcely to give a momentary relief. It not unfrequently happens that the stomach is disordered, although this is not essential to the disease; and when it is so, an emetic is necessary. For this purpose the ipecacuanha is the best, since it is not desirable to produce a powerful general effect upon the system. The emetic is but preparatory to the direct treatment of the disease; and there are many cases in which it may be dispensed with. For the cure, the chief reliance must be upon tonics; those particularly which give vigor to the actions of the stomach with little general excitement. The lime-water infusion of bark (Infus. Cinchon. cum Aqua Calcis of the United States Pharmacopœia) is a good preparation for this purpose. Given in the quantity of a wine-glass full two or three times a day, it will often arrest the disease and restore the strength. Another preparation of the cinchona, which is well suited to this disease, is a compound fermented infusion. Take of cinchona, bruised, half an ounce, serpentaria half a drachm, orange peel two drachms, boiling water a pint; infuse and strain, and when cool, add yeast a sufficient quantity to excite fermen-

tation. The carbonic acid, in almost any process of fermentation, seems to exert a very favorable influence in this complaint,—provided the liquid which accompanies it is not of a nature to produce acidity and flatulence in the stomach. Bottled porter and ale are highly useful remedies. For the reason just given, they should not be new; but if sufficiently matured, the more fixed air they contain the better. The effervescing salts also have sometimes a pleasant and salutary effect. Especially in case a laxative is necessary, it is quite desirable to give it in some effervescing mixture. This may be the common Rochelle or Seidlitz powders, or what I think for most cases a better preparation, a powder of Rhubarb mixed in water with the super-carbonate of potass, which is found in every family, adding a little lemon juice or other acid at the moment of taking it.

Where the porter has stimulated too much, and the effervescing salts were disagreeable to the patient, I have given a fermented solution of tartaric acid and sugar. In the warm weather this is quite an agreeable article of drink; when properly prepared, it contains a large portion of carbonic acid, and at the same time is so free from vegetable impurities, that it is very little liable either to give pain or excite flatulence in the stomach. The preparation of it is not difficult. An ounce of tartaric acid is put to about three gallons of cold water, with white sugar to suit the taste; and add two or three spoonfuls of good yeast, (more or less, according to the quality of the yeast,) stir it well

when first mixed, and once after two or three hours, at which time, if necessary, add more yeast; let it stand quietly in a cool cellar about twentyfour hours; then draw it off carefully and bottle it.

There are some cases to which the sulphate of quinine is well adapted. It is not in the worst state of the disease that it is the most useful, when there is a great deal of irritation in the mouth, throat and stomach. But in a debilitated constitution, in which there is a disposition to the disease; or after a severe form of the disease has been nearly cured, and is disposed to return, this remedy will sometimes exert a great influence. I have known a patient keep the complaint in check for a length of time, by taking a small quantity of the sulphate of quinine occasionally, whenever she perceived the approaches of the disease, as indicated by insensibility of taste, preceding the soreness.

There may be other tonics that would be equally efficacious, which I have not mentioned. I have spoken only of such as I have myself prescribed. Whatever tonics are used, however, it is essential that they should not be of the exciting kind. Tinctures of any sort are wholly inadmissible; and in general I have found it necessary for the patient to discontinue the use of wine, while the disease was in its severer state.

I have known of some cases, in which calomel, combined with opium, has been given to advantage, although I have not myself met with any which

seemed to me to call for it. Where there is much constitutional irritation, without great general prostration, we might expect decided benefit from the use of calomel and opium. But in the severe cases that I have seen, there has been so much prostration, with a disposition to sweating, rather than to a dryness of the skin, either before I was called, or before I have found opportunity to give this medicine, that I have made no trial of it.

I have said nothing of the benefits of change of air and exercise in this complaint, because there is nothing peculiar to it in their good effects. I have already sufficiently intimated, that no course of treatment, of which I have any knowledge, will at all times be effectual, so long as the patient continues to nurse her child. Where the disease is not arrested by the use of medicines, and especially if the strength continues to decline rather rapidly, weaning seems to be the only remedy. But enough has already been said of the circumstances, which require a resort to it.

In regard to the pathological character of this complaint, it is apparent that it is intimately connected with, and dependent upon some peculiar state of the system produced by the secretion in the mammæ. It is found only in females, and in them only while nursing, except when it returns in a mitigated form during pregnancy, in some persons who have before been subject to it; and it speedily disappears when that secretion is checked. But it is not enough to have traced it thus far, nor to show that the disease may

be removed by suspending so important a function. It is only in cases of great danger or extreme suffering that mothers can, or ought to be, induced to consent to weaning their children on account of it. It is necessary, therefore, to inquire more particularly into the nature of the actions by which the disease is produced.

That this affection is not the effect of mere exhaustion of the system, from the demand made upon it by the secretion in question, is manifest from the circumstance that women of a vigorous constitution and of good general health are subject to it, as well as those who are feeble; while, on the other hand, many, whose constitutions are extremely debilitated, go through the whole periods of pregnancy and nursing without any touch of it. It appears more rational to regard it as the effect of the local sympathies of the parts.

From the great liability of the stomach to be disordered in this complaint, and especially from the fact already mentioned, that those remedies only are of permanent benefit which act on the stomach, it should seem that it is chiefly through the intervention of that organ that the disease is produced. We know of no direct sympathy between the parts in which the affection first appears and the mammæ; while the stomach is very closely connected with the mouth and fauces on the one hand, and with the uterus and all the organs associated with it on the other.

This view of the nature of the disease sufficiently

explains all the phenomena, which I have been able to observe, both of the disease itself, and of the cure. In the treatment of a sympathetic disease, our first object is to remove, when that can be done, the affection that gave rise to it. But when that cannot be effected, or when, as in this case, the sympathy is with some function which it is important to preserve, our next purpose is directly to relieve the suffering organ. In the present instance, if we apply our remedies primarily to the local affection in the mouth, they fail of their effect. But if they are applied to the stomach, they are not unfrequently so successful as to give the patient a very tolerable degree of health, until the proper time arrives for weaning the child, when all tendency to the disease will of course cease.

ARTICLE IV.

CASES OF INFLAMMATION OF THE VEINS.

WITH REMARKS ON THE SUPPOSED IDENTITY OF PHLEBITIS AND PHLEGMASIA DOLENS.

BY WALTER CHANNING, M. D.

C. A., an unmarried woman, twentyone years of age, was first seen by me on the 17th of February, 1829. Her present illness began about a week since, but did not oblige her to give up work till the 14th. She complains of headache, cardialgia, and palpitation on exercise, or exertion of any kind. On the 13th says she had a fall, and thought she had caused some derangement in an old inguinal hernia on the right side, for which she habitually wears a truss. Nausea and vomiting followed the fall, and from that time the abdomen had been tender to the touch; but it was now neither tender nor tense. On the 16th, chill, followed by heat. Pulse now 80, vibrating, not strong nor full. Tongue denuded, no appetite; thirst rather

urgent; bowels costive; sallowness of face; lips colorless. She was reserved, rather than timid, so as to give the idea that she did not communicate her symptoms fully and exactly. Her symptoms did not lead to any satisfactory opinion respecting the seat of her complaint, and she was carefully watched on this account. On inquiry it was learned that she had been ill in the autumn, and, as she thought, with similar complaints, for several weeks, and that for several months the catamenia had been absent, but that they had recurred the last week in January.

She was purged freely on the 18th and 20th of February. On the 21st she was more ill; had more headache, anorexia, cardialgia, nausea and vomiting; pulse 84. Got two doses of ipecacuanha, and vomited four times; some bile; no dejection followed. From a suspicion that the disease might be in the head, she was put on a course of calomel. On the 23d she was disposed to doze; her pulse 90; tongue dry in the centre; feet cold much of the time. The afternoon previous she had a febrile paroxysm. She was slow in answering questions, and often groaned and sighed. In the night she had some delirium.

24th, catamenia, without relief; mind more dull; pulse 72; some delirium in the night. 25th, gums sore; reports better; pulse 72. The calomel was omitted. 26th, appeared more bright. 27th, less well. Has complained much of headache, and of pain in the right eye, especially when it is exposed to the

light. Says that this eye has at times a sensation in it as if exposed to lightning. Some strabismus was noticed this day. Pulse 108; mouth more sore; bowels have been kept open. She was purged, had four ounces of blood taken from the left temple by cupping, and was blistered on back of neck.

28th, she reported that she felt relief from the cupping, and still more since vesication, and that she could now see best with the left eye. Cup the right temple.

March 1st, more comfortable through the day and night preceding. Vision more perfect. Some pain in the ears. Asked for milk porridge, and some milk was directed to be added to her gruel.

2d. Complained of weakness, and of increased soreness of the mouth and throat, though she has not used any mercurial medicine since the 25th ult.; pulse 108. March 3d, less well in the night; complains of pain in the stomach; pulse 132.

5th. Mouth grows daily worse; tongue much swollen, so as to prevent speech; pulse 132; stupor quite gone; vision natural; pain in ear continues, perhaps from soreness of throat.

8th. Mouth the same; some slight pain lingers about the left eye and forehead. 10th, whole aspect better; got a little milk porridge. 11th, not quite so well as to head and vision. 13th, appeared nearly the same. It was thought then, and for several days before, that the affection of the head had subsided very nearly, if not entirely, under the severe saliva-

tion she had experienced, and which had not yet ceased.

At 5 P. M. this day, I was called to her, and found her in extreme agony. Her mind was clear; her face very pale and much shrunken; her skin cold, and her pulse extremely rapid and feeble. Her suffering was referred to the right groin, and the corresponding extremity. The whole thigh, leg and foot were greatly swollen, and very tender to the touch; but neither hot nor discolored, except from distension of the veins. Extra clothing was grateful to the limb. She had begun to complain at 1 o'clock P. M. and was soon in great distress; had great thirst, some nausea and vomiting, and frequent fainting. On inquiry it was now ascertained that she had suffered some uneasiness in this limb the day previous, and this morning, but had said nothing about it at the visits. The following course was decided on, under the belief that the principal difficulty was near the groin, and that it was very probably inflammation in the iliac and femoral veins, viz. Sixty leeches about the groin; a large blister on the upper and inner part of the thigh; and opium in full doses, till she should be relieved from her agony. Venesection was forbidden by her previous weakness, and the present state of the pulse.

14th. After the leeches and four or five grains of opium, she obtained some relief from her extreme agony. The thigh was now, 9 A. M. somewhat less tense, but the leg and foot remained the same.

She has hiccough, and her pulse are not better. The appearance of extreme prostration also continues. Apply forty leeches. Vesicate the thigh on the outside. Cathartic; fomentations. Opiate, if distress be great. Wine, or brandy, p. r. n.

5 P. M. Pain in both sides of thorax, since last report; frequent deep sighs and groans. Pulse scarcely perceptible. Vomited part of cathartic, infus. sennæ comp. but retained about four ounces; countenance exceedingly sunken; skin cold; jactitation.

Cerat. cantharid. seven by five, across lower part of chest. Foment leg, as before. Acet. opii, gtt xx. at bed time, if distress be urgent.

15th. Rather more comfortable; slept some without opiate. Pulse as yesterday at wrists; by carotids 156. One dejection after enema, with much flatus. Calf of leg now most painful. Hiccough continues. Swelling of tongue gone; tongue cleaner, moist; swelling at inner and upper part of the thigh subsided. Vesicate inside of leg; embrocation to whole limb; enema once in every four hours, until bowels be well opened.

4 P. M. One dejection, copious, since enema.

16th. Some amendment. Pulse 130, fuller. Leg less swollen, softer, œdematous, upper part of thigh very tender on pressure. Tenderness not above Poupart's ligament; has vomited twice. No dejection since report. Repeat enema.

17th. Lying on left side, breathing slowly; has

vomited five or six times; hiccough less; countenance and lips less pale; has had three enemata, none of them retained; no dejection; skin still cold; urine five or six times, involuntary; two hours sleep last night; upper part of thigh more tender; foot more swollen, pitting on pressure. No pain in abdomen.

18th. Short exacerbation of heat about 1 P. M.; afterwards some chill. Three enemata, one small dejection. Pulse 124, small, feeble; flush on left cheek; brown coat on tongue; mouth again more sore; leg rather more swollen. Has taken tincture of myrrh and aloes in small doses, and tinct. op. for pain. Limb more swollen, but œdematous. The whole limb tender, suffering from slightest touch. Urine sufficient, voluntary; no hiccough. Magnesia was directed, to be aided by enemata. Annoyed by blisters, which have suppurated.

19th. Seven dejections, without enema. Stomach altogether relieved. Slept better than any preceding night. Pulse 120. Countenance pale, but calm. Tongue as before; some slight disposition for food. Limb evidently diminished in size.

20th. Report of this morning still better than preceding. Asks for meat; is allowed to chew some. Bowels well.

21st. Reports favorable. Desired soft egg; had one, and was not at all incommoded by it. 22d. Rather more swelling about leg and foot.

23d. More pain in leg and foot since yesterday noon. No dejection.

℞. magnesiæ drach. un. Repeat in six hours if need be. Ten leeches to leg.

24th. Limb not relieved. Countenance improved. After one dose of magnesia, three dejections. Pulse 120, fuller. Says worst pain is now between hamstrings under the knee, but that the leg also throbs, and feels as if pins were sticking in it. Leg found more swollen on examination; no pitting above the knee; blisters nearly healed.

Cerat. cantharid. 6–4. to lower part of leg. Keep blister on six hours, then remove it, and apply it again in the morning, if not relieved or vesicated.

25th, 9 A. M. Some relief from blister; limb slightly vesicated. Pulse 144, small, feeble; skin warm. One dejection. Vomited breakfast. Stomach now easy.

11 A. M. About fifteen minutes since, vomited two ounces of a grass green liquid, followed by sense of choking at top of trachea, and great distress. Face pale; brow contracted; respiration high and full; deep sighs; great jactitation; pulse fluttering; sense of suffocation seeming to pass down, according to patient, to epigastrium. She rose suddenly on end, and shrieking, fell back, and expired without any struggle.

Examination.—*Post Mortem.*

The body was examined fortyeight hours after death. In the *cranium* there was found some water

between the membranes, but the quantity was not large. The brain was firm, and very healthful in its general aspect. In the posterior lobe of the left hemisphere, was found a portion changed by disease. It might be called an abscess. Externally, a portion of the cortical part was changed in appearance, as if it had undergone a little decay; or, as if a little pus were diffused through its substance. The outline of this portion was distinctly marked, the surrounding parts seeming quite natural. In length it was nearly an inch, and its average breadth was about half an inch. The change pervaded the cortical substance. The medullary substance, immediately under it, was diseased to a much greater extent. The change in the color of the cortical part did not extend through the medullary substance, for after cutting through a small thickness of this last, there was found a cavity. This cavity extended to the posterior part of the lateral ventricle, and apparently communicated with it; but possibly the communication was formed in the handling and dissection of these tender parts. The cavity was obviously formed by disease, though its parieties were found lying upon each other without any distending fluid like pus or serum between them. Some such fluid, however, might have escaped during the dissection; but it could not have been pus, as this would have declared itself by its color, and some of it would have been seen adhering to the internal parieties of the cavity. It might have been serum, of which some was found in the ventricles. The cavity

might have held one or two drachms of fluid. Its internal surface was white and soft, presenting an appearance of thick cream. This softened mass was perhaps a line or more in thickness. Regarding the medullary substance as fibrous in its texture, one might have supposed that the cavity was formed by a division of fibres at this part, and that the divided ends of the fibres had undergone softening. Around the borders of the cavity were several masses of a brownish red color, seeming to be portions of semi-coagulated blood, contained in circumscribed cavities.

In the *thorax* there was nothing remarkable. The heart contained rather less blood than usual. This blood had coagulated, and some of the coagulating lymph had separated from the red globules after the common manner.

In the *abdomen* the only thing remarkable was in the *right iliac vein*. This was found to be inflamed from the vena cava to the crural vein. The disease did not extend to the internal iliac, but from the common iliac it only passed to the external branch. The evidences of inflammation were, *First*, the hardness of the vein, and its distension in a greater or less degree. *Second*, on division, the coats were found thickened. *Third*, the internal coat was of a deep red color, approaching to livid. *Fourth*, the diseased part was almost entirely filled with coagulating lymph.

At the upper part, just below the vena cava, this lymph was cylindrical in form, and nearly pure, for the length of three fourths of an inch. This portion

was so shrunken as not to fill the vein, and its upper end looked as if a portion might have been broken off from it. The coats at this part were less diseased than elsewhese. Below this the vein was filled with coagulating lymph, which adhered closely with the vessel, being, as it were, glued to it, not organized. The lymph, there filling the vein, was not pure, but slightly reddish, from the mixture of red particles, and in one small part, midway from the vena cava to the crural arch, there was a little dark coagulated blood. The disease extended a very short distance below the arch; but the vein below that, and its principal branches, were found hard and large from the presence of coagulated blood. The coats in these parts were not thickened, though discolored, probably from the blood.

The circumstances mentioned explain the symptoms in the early period of the disease, and the swelling of the lower extremity, in a very satisfactory manner. But they do not explain the sudden death; nor the symptoms immediately preceding it. It was conjectured that this might have been occasioned by a portion of coagulum detached from the vein, and occasioning some obstruction in the heart or in the pulmonary vessels. But though this hypothesis was kept in view during the dissection, nothing was discovered to corroborate it. The windpipe was examined, as the sense of choking was one of the greatest complaints before death, but this part was found in a sound state, and empty as usual.

Case II.

1829. Sept. 25th. This patient, Isaac Sole, aged twentyone, presented the following symptoms when I first saw him, this day. Great difficulty in breathing, accompanied with a grunting sound; acute pain passing from spine to lower part and right side of thorax; great tenderness of chest, preventing percussion; by stethoscope, respiration noisy, crepitous; uses left side of chest principally in respiration, and moves the trunk after a manner to favor the right side; pain in side came on last night, and is now more intense than since occurrence. Pulse 84, hard, strong; face deeply flushed. Says he was attacked with ordinary symptoms of fever a fortnight since, but was not obliged to confine himself to house till a week ago.

The treatment consisted in blood-letting, vesication, and powders of colchicum root, and calomel. Much relief followed, which continued till 8 A. M. of the 26th, when severe symptoms, like those just described, came on again. This was about twentyfour hours from the beginning of the treatment yesterday. The attack was sudden, and the pain in the right side was as intense as before. A full dose of tinct. op. was given immediately, which was soon followed by entire relief. Vesication near the spine of the affected side was ordered, and a continuance of the colchicum and calomel. I saw this patient at 9 P. M.; found

him easier, and that he had been freely purged by the powders; the dejections contained much blood. This last is not an uncommon effect of colchicum, but took place earlier during its use than is usual. The directions were to omit the powders if the bloody dejections continued, and to substitute pills containing calomel, opium, and tartarized antimony. If pain in chest recurred, to repeat the opiate, and to resort to venesection if indicated.

27th. The colchicum was omitted, and the pills given. Dejections still bloody, but less so; respiration perfectly easy; no tenderness, or uneasiness of any kind in the abdomen. Pulse 80, softer. Tongue dry, brown, rough. This has been its state more or less from the beginning. Skin warm, dry.

28th. 9 A. M.* Two dejections last night, one of them a little bloody. Slept but little. Pulse 84. Skin warm; face less flushed. Had chill this morning, and, following it, most acute pain in right leg. Upon examination, whole limb greatly swollen, tense, shining, not discolored; the least motion of the limb causes exquisite suffering. Pain most acute just below, or begins at Poupart's ligament, following the course of the femoral vein. Examined by pressure; great tenderness in groin, and acute pain, and enlargement of inguinal glands. Following the course of the vein with the finger, the pain becomes less about four inches below the ligament. Acute pain in calf

* The reports in this, the preceding, and succeeding case, are made between 8 and 9 A. M. and relate to the occurrences of the preceding day.

of leg, and on top of foot, scarcely bearing any pressure; slight pitting on instep.

Sixty leeches to groin and course of vein; afterwards vesicate upper part of thigh, and apply hot fomentations to the rest of the limb. Continue the pills.

6 P. M. same day. Two dejections, without blood. Day has been comfortable. A few minutes since was seized with most acute pain in right side as before; says it followed immediately after swallowing a mouthful of cold water while taking a pill. This was just before my visit. He is bathed in sweat; pulse 96, small, sharp. He got at once 60 drops tr. op. in warm tea, to be repeated in half an hour, unless relieved. Venesection if not relieved in an hour after second dose. Hot fomentations to seat of pain. He described the pain as beginning near lower edge of right scapula, extending forwards below pap, and ending at sternum. In this whole course surface exquisitely tender, not bearing the least pressure; respiration high and rapid, ending with strong grunt. Since leeches, &c. to groin and leg, great relief of pain. Bears moderate pressure on groin, and along the portion of vein, which was so painful on pressure; now no pain complained of there. Calf of leg very stiff; no increase of swelling in the limb; can bear it to be moved a little. No tenderness or pain in any part of abdomen.

29th. Pain in side and dyspnœa entirely relieved by opiate and fomentations. More tenderness in

groin and thigh. Sweats profusely. Tongue dry, but less brown.

Fifty leeches to seat of pain in groin and limb. Continue other treatment, and resume opiate, and vesicate side, if pain recur.

30th. Pain twice in side, but relieved as before. Pulse 84, softer. Leg reported much easier than at any former period, but not all diminished in size; can move the limb, and thinks he could bear his weight on it, or get out of bed without help. Some pitting over tibia. Bears pressure in course of vessels of thigh and over abdomen without complaint. The whole limb was very sensible to cold yesterday, and this continues today; can hardly bear the clothes to be raised during examination. Bowels regular; mouth not sore. To continue pills, &c. and apply leeches if pain recur.

October 1. Gums sore; five dejections, loose, painful. Tongue cleaner. Pulse 84, stronger and fuller. Thigh less tense, smaller; some pain in calf of leg on rising.

Forty leeches about thigh and groin. Diminish pills to three a day; if mouth gets more sore, omit them.

3d. Diarrhœa increased, and was diminished by Tr. op. This morning severe chill, with universal rigor, chattering of teeth; rapid respiration; pulse 120. For these got Tr. op. in warm tea, and was speedily relieved. Mouth quite sore; some ptyalism; omit pills. Thorax was examined by stethoscope and per-

cussion. Over seat of pain sound flat; respiration not heard; near this spot crepitous rattle. Vesicate this spot. Slight cough. Diseased limb decidedly smaller, and bears full pressure over seat of vein.

4th. Altogether more comfortable. Slight sound of respiration in spot in which it was not heard yesterday.

5th. Pulse 75, full. Tongue nearly clean. Mouth very sore. Two dejections. Rested well. Side free from pain. Diseased limb bent, and less swelled.

6th. Lying easily on left side; day and night very comfortable. Pulse 72. Tongue clean. Three dejections.

5 P. M. Pulse 84, hard, weak; increased pain in and about groin in course of vein.

Thirty leeches to seat of pain.

7th. Limb easier since leeches; still painful, and more tender on pressure. Delirious in night.

Twenty leeches to thigh in course of vein.

8th. Delirium through day and night. Some sleep, but not quiet. No cough; no expectoration. Complains only of back; this sore from lying. Pulse as before. Tongue dry; mostly denuded; slight crust near tip. On percussion right thorax flat below fifth rib; left resounds well. On right side murmur of respiration wanting below fifth rib; above this slight crepitating rattle. In groin less fulness, and less tenderness; some tenderness below groin in course of vein, but less than before.

Leeches, if pain about leg, and blister if elsewhere.

This patient gradually recovered from the disease of the leg, occasionally suffering from increased pain and swelling, but never so severe as to require more active treatment than fomentations. He got out of bed on the 14th without assistance, and was able to be dressed, and sitting up on the 22d. He was for some time annoyed by a cough, with bloody expectoration, and occasional attacks of pain in the right thorax. He walked about his room on the 22d. His appetite rapidly returned, and even when the thoracic symptoms made abstinence necessary, his hunger was great, and with much difficulty appeased. He had swelling of the ancle and foot of the affected limb for some time after the disappearance of active disease, for which bandaging was remedial. On the 25th October he began to complain of pain and swelling in the right arm, making motion very difficult. This subsided under the use of fomentations. A tumor of some size appeared on the 15th, in the right ham, which gave way to leeches and embrocations. On the 4th December, he was reported well. He had ceased to employ medicines for some weeks before, but as his disease had been a most severe one, it was thought safest for him to be watched, and a cautionary course pursued to prevent its return.

Case III.

E. B. Cutter, aged twentysix. Jan. 17th, 1830. Says he has been unwell ten or twelve days, with pain in head, back, and shoulders, with bad taste in

mouth. Gave up work the 15th. Chills on that and succeeding day, yesterday. Complains now of headache, pain in back and shoulders as before, but not very severe. Tongue has thin white coat in centre; edges clean; bad taste; great thirst, not without appetite; and has sense of faintness at stomach. Pulse 108, hard. Sleeps tolerably well; face flushed; skin generally cool. These symptoms continued, with variations in degree, for some time. At times the pain in the head was very severe; the mind dull; memory uncertain. He had bloody dejections at one time; was much annoyed by dysuria; episaxis occasionally; cough; dyspnœa; expectoration at times bloody. His front upper teeth have much troubled him; they were frequently very painful, discharging from gums much pus and blood. They were injured by a fall from a stage coach late in November; and though the fall was severe, he does not recollect that his head was at all injured; at least pain was not felt in it till the time above stated.

He complained of soreness and stiffness in the limbs, Feb. 11th. The 12th, said these symptoms were confined to left thigh and leg, which upon examination were found swollen, last particularly below the knee, and exquisitely tender to the touch. Upon careful inquiry it was learned that slight uneasiness had been experienced in this limb for some days. His general state had been gradually improving. A blister was directed to the inner side of the thigh.

13th. Reports less pain and soreness in limb, and thinks they were less before vesication.

16th. Perhaps more soreness in and about groin; motion very painful.

17th. Fulness in groin increased; on pressure, many glands slightly enlarged; very painful on pressure, and in upper part of thigh in front; at this part limb swollen; below middle of thigh swelling and pain subsided.

Leeches to groin.

18th. No difference in pain about groin and thigh on pressure; tenderness in upper part of thigh and groin; the feeling there as if of cords.

Vesicate groin and thigh.

To 27th, reports gradual amendment. On this day more pain and swelling in limb, and feeling of cords extending from groin down a part of limb very distinct.

Leeches as before.

28th. Great relief since leeches.

March 4th. Sits up, and can support some of his weight on diseased limb. 7th, some increase of pain, which subsided after an active cathartic; and from this time he gradually recovered.

Case IV.

April 29, 1829. Mrs ——, aged thirtyseven, mother of six children. Has not been well last months of pregnancy, greatly annoyed by vomiting and pain in the uterus, especially at night. Occasional discharges of water from vagina. Heat at times great; is restless, thirsty. Was seized on 25th instant with

unusual affection of brain; top of head numb; could see only half of an object to which she directed her eyes, half of a letter for instance in reading, half of a person, &c.; was leeched freely in temples, with relief. Is plethoric; very fleshy; cannot be bled from arm; faints when arm is tied up, or before a vein can be opened. Diet has been carefully attended to; bowels kept regular by medicine; and nitre, Clutton's spirit, &c. have been taken with a view to diminish heat, &c.

Labor took place on the night of the 29th. I saw her at 3 A. M. Pains regular, but not urgent. Os uteri dilated, about size of a sixpence. Scarce any show. Membranes broke suddenly during a pain, and at a little past 6 A. M. the child, a full sized male infant, was born. Abdomen, examined immediately after the birth, is large, firm, as if delivery had not taken place; examined, the arm of another fœtus was felt presenting, and was at once protruded through the external organs by a very severe pain. When the pain subsided, I passed my right hand with much ease into the uterus, gained the feet, and turned and delivered the child, a full sized male infant, without difficulty, and with little more suffering to the patient than in ordinary labor.

This patient continued very well, the lochia natural, and milk in the breast, till the morning of the 2d of May. I was called to her between 6 and 7 A. M. and found her suffering a very severe rigor, attempting in vain to control the shivering with her will;

voice tremulous; face anxious, pale; lips livid; skin is warm, and in some parts hot. Reports her night to have been unusually good; slept soundly till an hour and a half since; then awoke with severe pain in the lowest part of the abdomen, and was soon seized with chill. Pulse 120, strong, hard. Fomentations have been applied to the abdomen, and bottles of hot water to feet and legs. Upon examination, the pain is found deep seated in the pelvis, beginning within the right ilium, and shooting in various directions through the pelvis; it is also felt in the left hypogastrium, extending to the groin, and down the thigh. She has pain in the forehead, but not very severe.

In treating this case, an attempt was made to bring about immediate resolution. The symptoms were very severe, but they had very recently manifested themselves. She was bled; a vein filled unusually well, and the mind was so occupied by suffering, and apprehended danger, that there was no disposition to faintness at the beginning of the operation. About twenty ounces of blood were drawn from a large orifice and good stream, when faintness came on, and the blood ceased to flow. Much relief was experienced. The local symptoms were diminished, and the force of the pulse lessened. Its frequency was not much altered. The following was next directed.

℞. Antimon. Tart. gr viij aq. bullient. unc. un. cap. statim drach. un. et rep. quaq. hora donec. vom.

12th, noon. One drachm of the solution produced much nausea and vomiting. Pulse still as frequent;

pain increased, but less than before blood-letting; it is most severe about and within left ilium, and about groin and thigh; cannot extend right limb.* Examined abdomen again, and found the uterine tumor large, hard, and exquisitely tender. This was not felt at the morning visit, though carefully felt for.

Twenty French leeches about ilium, and apply a chamomile fomentation over whole abdomen. Frequent loose dejections; nothing is given to check them, as relief follows each discharge, and there is no present exhaustion.

7 P. M. More comfortable; has slept since visit. Pain diminished, but still felt low in the abdomen. Twenty leeches to seat of pain; vesicate; and afterwards one of the following, and repeat every four hours.

℞. Hyd. Sub mur. gr. xij Antimon. Tart. gr. i. pulv. opii. gr. i. M. divid. in Pil. no. iv.

11 P. M. Much griping; bearing down; heat and general uneasiness. Frequent, small, watery dejections. Says blistering always annoys her; feels fatigued from application of leeches; urine free, though complains of dysuria. Begs not to be touched. Pulse 100. Gave laudanum with Clutton's spirit, and applied fomentations to blistered surface.

May 3d, 1 A. M. Was called to see patient; found her very uncomfortable. Complains of great distress, not acute pain, at lower part of abdomen. Pulse 96,

* I saw this lady today, July 22d, 1830. She is in the fifth month of pregnancy. I asked her if she had experienced any pain in the right limb since her recovery. She said that up to this time she occasionally feels pain in the part, and is reminded by it of her former suffering.

softer than before. Repeated laudanum, &c. Gave another pill of the submuriate. Patient was soon much relieved; profuse sweat, warm, general. Asked for friction over sacrum and thighs; much relieved by it.

7 A. M. Asleep; has been asleep two hours. When awake, expressed herself much refreshed; no griping; abdomen easier than at any former time of the disease; very little pain, and that scarcely augmented by pressure; uterine tumor not to be felt; abdomen every where soft, and not at all tumid. Pulse 84, soft; reports better than at any other visit; can extend right limb, and lies in this position easily; whole aspect much improved.

The remainder of the week is filled with daily amendment. 13th, walked a step or two. Some milk in the breasts. June 1st, health established, but the milk has entirely disappeared.

The foregoing are communicated as cases of Inflammation of Veins, a disease which has, within a few years, excited much interest in the profession. About the first no question can arise. Its nature was fully declared by the symptoms during life, and the opinion then formed was abundantly confirmed by the appearances after death. I regret that there has not been time sufficient since I determined to communicate this paper, to make an engraving of the diseased veins which are in my possession. This patient suffered two grave diseases at the same time. A disease of the brain preceded that of the veins some time,

even months, if the statement of the patient is admitted in evidence. The question may occur, whether the appearances observed in the brain after death were occasioned by the disease in the head, for which this patient first came under treatment? or were they Secondary Effects of Inflammation in the Veins? The latter question contains the title of a very able article, by Mr Arnott, in the fifteenth volume of the London Medico-Chirurgical Transactions. I am inclined to ascribe the appearances in the brain to the disease which manifested itself there some time before the limb became diseased. Mr Arnott has furnished abundant evidence that such disease might have accompanied, or been produced by the phlebitis; but the order of time, in the above case, does not seem to me to allow us for a moment to suppose that the softening and other disease of the brain was an effect of the inflammation of the veins.

Death took place suddenly in this case, and after changes had occurred, which promised a different issue. The disease, in like manner, was sudden in its invasion. In the latter of these circumstances, this case resembles many others of phlebitis on record. In the suddenness of the fatal symptoms, it resembles one in Dr Davis's paper, in the twelfth volume of the Medico-Chirurgical Transactions. In Dr D.'s case, symptoms of puerperal fever preceded those of phlebitis, or, as Dr D. terms it, phlegmasia dolens. The treatment was successful. In about a week after it was begun, "she convalesced rapidly

and satisfactorily." "Her death took place *instantaneously*, whilst in the act of changing the recumbent for a sitting position, in the expression of a little merriment at the expense of something ludicrous which her waiting woman had said to her, and in about an hour after the enjoyment of an unusually full dinner." Examination after death discovered that every part examined was in a natural condition, except "a part of the left external iliac vein, including about half an inch of the upper portion of its corresponding femoral vein. That vessel was found strongly attached by adhesions of its cellular coat to the parts forming its natural bed. Its parietes still retained a morbid thickness, and its internal tunic was studded in several places with deposits of adherent lymph. The portion most remarkable for this incrustation, and otherwise most diseased, was the part of the vein immediately under Poupart's ligament. The appearance of that part is yet well preserved in the preparation, and forms the rough scabrous portion of it. The tube of the vessel was still manifestly pervious, though it had suffered a diminution of capacity, amounting to, perhaps, one half of its natural diameter. The inguinal glands were not diseased. The right iliac vein was in a perfectly healthy state." op. cit. p. 435.

The second case above reported was alike sudden in its invasion and violent in its character with the first. It occurred amidst other very severe general disease, and had complicated with it in its course very formidable disease within the thorax. If a doubt

can arise as to this being a case of phlebitis, I know of nothing to sustain it but the fact of recovery, a rare thing in this disease in any of its forms, and surely hardly to have been looked for in one so severe as this. For relief of the attacks in the chest the principal means employed was opium. It was given with a view to the relief of the present exquisite suffering of the patient; and from recollecting how copiously blood-letting and other means had been tried not long before, I felt persuaded there was no hazard in trusting to it. I am disposed to think that the longer we practise physic, the more we see of disease, and of the effects of remedies, the freer and earlier in cases is the use we make of opium. I have very recently been struck with its good effects in cases of extreme pain, which wanted the characters which govern us in the use of this article in other diseases. One of these was a vigorous young man, who came under my care for fever. When I saw him, along with febrile symptoms, he had acute pain in the abdomen, about midway between the false ribs of the left side and crest of the ilium, about two hands breadth from the *linea alba*. Breathing aggravated the suffering, and the least motion of the trunk produced an outcry of agony. Full blood-letting, to thirtyfour ounces before syncope, fomentations, vesication and colchicum were tried, with directions to resort to full doses of Tr. opii. if pain was not relieved. It was not till the last was tried, and its use was deferred for some hours to give the other means a

fair trial, that this man got relief. A similar affection soon after seized the left thorax, and top of the left shoulder. The suffering was equally severe. Very little relief was obtained until opium was again freely used. Recurrences of pain have been frequent since, with similar benefit from the remedy. Of late his whole treatment has consisted in pills containing three grains of solid opium, and he is entirely convalescent.

Another case was of a lady after confinement.* She appeared to be most perfectly healthful at the time of labor, but betrayed after delivery, as I learned, great irritability. I was called to see her five days after confinement, and found she had been almost continually watchful since that event. She had been seized with chills on the morning I was called, and I found her with a pulse of 152 in the minute, small; abdomen full, as if she had not been confined; tender on pressure, especially over the uterus, which remained very large, and hard. Her greatest suffering was in the right thorax, almost preventing respiration; the *slightest motion* occasioned her to cry out with the agony it produced. The skin was warm and bathed in sweat; the tongue was clean and moist; the expression of the face was peculiarly brilliant, when absence from suffering occurred—that expression which belongs to a highly, but pleasurably excited mind, and, from its resemblance to some varieties of

* The labor was preternatural, but was completed in less than twelve hours, and with no more suffering than a previous confinement. I saw this patient, out of town, in consultation, and did not see her again till called the fifth day from her delivery.

the maniacal countenance, I could not but ask the nurse, if there had not been delirium the night before. It belonged to the state of watchfulness probably, which had existed so long, and which had not yet produced exhaustion.

The treatment of this case consisted in full opiates at first, combined with Clutton's spirit; and fomentations to the whole abdomen of chamomile flowers, in bags of flannel wrung out of hot water. To these were to be added, as soon as relief occurred, pills of calomel, opium and tartarized antimony, in combination. Leeches to the seat of pain, and vesication, if the above did not produce relief. At bed time a full opiate was directed, unless sleep.

The next day I found this patient greatly, I had almost said entirely, relieved. Her sleep had been very sound, and when she was roused to take a little nourishment, she hardly recovered consciousness enough to swallow it. The pulse was 96, soft. The bowels were free; abdomen less full; still a little tender over womb. The lochia are natural; and the breasts are full of milk, as they have been since confinement. This patient suffered similar paroxysms, the seat of suffering being different in them all. The last was in the left thorax and top of left shoulder. They yielded to the fomentations, and laudanum, except the last, which not yielding as soon as the others, a large blister was applied, with relief, over the greater part of the thorax. In the first attack, the right hip and upper part of thigh were very painful, especially on

motion. No swelling, or tenderness on pressure could be discovered, and the symptoms soon disappeared. On the nineteenth day from labor, and the fourteenth from the attack of severe disease, this patient was fully convalescent. She had been very comfortable for many preceding days.—This resembles some cases lately published in London by Dr Robert Lee, which will be more particularly referred to hereafter.

The third case was very mild. It hardly seemed that so severe an affection as phlebitis could exist in a degree so slight as not to produce more notable effects. The symptoms however are considered sufficiently characteristic to warrant the short record which is given of the case. Similar mild cases may be met with in writers who have treated of the disease.

I have added the fourth case, from its resemblance to a disease described by Dr Robert Lee, in his truly valuable paper in the second part of the fifteenth volume of the Medico-Chirurgical Transactions.* This disease is inflammation of the uterine veins. On this subject Dr Lee observes, "Recent experience has induced me to believe, that uterine phlebitis is of far more frequent occurrence than has yet been suspected, and that to it must be referred many of the fatal disorders of puerperal women, which have usually been comprehended under the vague designation of

* Pathological Researches on Inflammation of the Veins of the Uterus, with Additional Observations on Phlegmasia Dolens, by Robert Lee, M. D. Op. Cit. p. 369.

puerperal fever or peritointis." p. 405. I shall have occasion to recur to Dr Lee's communication by and by.

The disease which forms the subject of this paper has an interest to the physician, aside from what belongs strictly to itself. It has within a few years been identified with another disease, with which it has certain symptoms in common; this disease is *phlegmasia dolens*. The identity of these diseases was first promulgated by Dr Davis, in his communication already referred to. It would seem that till the time he wrote, with the exception of the celebrated case of Zinn,* no dissections had been made in cases of phlegmasia dolens,—(Hull, a very learned and well known writer on this disease, spells it phlegmatia.) It is not however solely for the sake of proving the identity of these diseases that these post mortem examinations are brought forward by Dr Davis, but for the more important end to show that the true pathology of phlegmasia dolens has hitherto been unknown; to prove, in fine, that this disease is not produced by a metastasis of the lochia, the doctrine of Muriceau; of the milk; that of Puzos, by inflammation of the lymphatic organs or system; or White's doctrine; of all the textures of the limb, excepting perhaps the blood vessels, that of Hull; but to prove, or at least to attempt to prove, "that the proximate cause of the disease called phlegmasia dolens, is a violent inflammation of one or more of the principal veins, within

* Comment. Soc. Reg. Sc. Götting. tom. 2.

and in the immediate neighborhood of the pelvis, producing an increased thickness of their coats, the formation of false membranes on their internal surface, a gradual coagulation of their contents, and occasionally a destructive suppuration of their whole texture, in consequence of which, the diameters of the cavities of these important vessels become so greatly diminished, sometimes so totally obstructed, as to be rendered mechanically incompetent to carry forward into their corresponding trunks, the venous blood brought to them by their inferior contributing branches."*

Dr Lee, who has already been referred to, has written in support of the doctrine of Dr Davis. His first paper, entitled A Contribution to the Pathology of Phlegmasia Dolens, is in the first part of the fifteenth volume of the Med. Chir. Trans. Dr Lee reports five cases, all of which recovered. The first died from uterine hemorrhage twentyone months subsequent to the attack of phlegmasia dolens. Obliteratim, and other marks of disease, were discovered in the common iliac, its subdivisions, and upper part of the femoral veins, of the side and limb which had been the seats of the previous disease. In the second case, unequivocal marks of phlebitis, according to the author, were present; in the remaining three, though Dr Lee had no doubt that an inflammatory affection of the veins existed, yet, he remarks, "that degree and kind of swelling of the inferior extremity did not take place, which is considered to be characteristic of

* Med. Chir. Trans. Vol. XII. p. 426.

phlegmasia dolens."* It is not perfectly easy to decide to which of the diseases these cases, except the first, strictly appertain. The first was a case of phlebitis, as the symptoms indicated, and the examination after death proved. Three of the others at least are somewhat obscure. They wanted the characteristics of phlegmasia dolens; which fact, if this be identical with phlebitis, might, it would seem, separate them from the latter disease.

In the second part of the same volume, Dr Lee has a paper on inflammation of the veins of the uterus, from which an extract has already been made. In this paper, Dr L.'s views respecting phlegmasia dolens are further developed. The following quotations will give some notion of his latest published opinions. Speaking of the cases reported in his paper, fifteen in number, twelve of which were fatal, Dr Lee remarks, "Although these are the only cases of phlegmasia dolens, wherein the affection of the iliac and femoral veins has been distinctly traced to the venous system of the uterus, yet they would perhaps of themselves warrant me in drawing the inference, that the disease generally commences in the uterine veins, and that it is not a mere local affection of the limb. This general conclusion will, however, derive strong additional support from the following facts, which I adduce from the works of different authors."†

After giving these facts, Dr Lee goes on to say,

* Op. Cit. p. 145. † Op. Cit. pp. 391, 392.

"As none of the symptoms of phlegmasia dolens were present in either of these cases, and as neither pain nor swelling occurred in the left inferior extremity of the patient whose case I first detailed, though the common and internal iliac veins were both completely impervious, it would seem to follow, that it is essentially requisite to the production of the disease that the inflammation should extend from the iliac into the principal veins of the extremity. In all the examples of phlegmasia dolens which have come under my observation, this extension of the inflammation has been distinctly marked by increased sensibility, and by a hard and distended state of the femoral vein, from Poupart's ligament to some distance along the inner portion of the thigh."* Again, at page 399, "The mode of development and extension of the inflammation from the uterine to the iliac and femoral veins of the affected extremity, will be best understood by a concise statement of the principal facts relating to uterine phlebitis, *of which phlegmasia dolens must now be considered as merely one of the remote consequences.*"

The following is the conclusion, which Dr Lee draws from all the facts which he relates. "Such is a faithful relation of the facts, which have led me to conclude that inflammation of the uterine veins is a disease of frequent occurrence, not only subsequent to parturition, but in the malignant organic affections of the uterus, and that the extension of this inflam-

* Op. Cit. pp. 393, 394.

mation along the hypogastrium to the iliac and femoral veins, is the cause of all the phenomena observed in phlegmasia dolens."*

It is quite curious to observe the course which medical opinion has taken in regard to this doctrine of Dr Davis, and which is so fully advocated by Dr Lee. In Europe, both on the continent, and in Great Britain, it has been very generally, if not universally, received. In this country, on the contrary, I find no writer who has adopted it, and in conversations with many physicians, I have not found an individual who receives it.

Dr Hosack, in 1824, just a year after Dr Davis's paper appeared, published a valuable essay, entitled "Additional Observations," to an Essay on Phlegmasia Dolens, which was printed two years before.† These "Observations" are a critical examination of Dr Davis's theory, with a view mainly to its refutation. In 1829, Dr Dewees published an essay on phlegmasia dolens.‡ This is truly a very excellent and practical essay. Dr Dewees examines the various preceding opinions and doctrines with much fairness, and with a very just apprehension of their various merits. He rather favors the opinion of Hull, and his own theoretical views are summed up in the two following suggestions, after acknowledging that the

* Op. Cit. p. 432.

† Essays on various subjects of Medical Science. By David Hosack, M. D. F. R. S. L. and E. &c. 2d Vol. p. 233. New-York, 1826.

‡ American Journal of Medical Sciences, No. IX. Nov. 1829. Philadelphia, 1829.

pathology of the disease remains unsettled—"1st. Be the affection seated in whatever tinue it may, its character is highly inflammatory. 2d. That in our opinion, that this inflammation occupies exclusively the white lymphatic vessels of the cellular membrane of the several textures of the limb; for we are every way satisfied that redness is not necessary to inflammation, as we have elsewhere declared."*

Dr Dewees is thus wholly opposed to the doctrine of the identity of phlebitis and phlegmasia dolens. He urges one consideration, which must be allowed great weight. This is the frequent mortality of the first, and the rareness of death from the last. It seems strange that these facts have not been adverted to by those who have so zealously contended for their identity abroad, from Dr Davis to Dr Lee, the earliest and the latest who have urged their sameness. I took occasion some time since to ask an opinion on this subject of a physician of very extensive experience, and who holds a distinguished place in a medical school in a neighboring state. He said he had seen phlegmasia dolens as often, he thought, as falls to the lot of a physician of large practice; that he had never known it fatal. "So far from it," he added, "when I am attending a lying-in woman who has febrile symptoms, those of puerperal fever for instance, and I learn that a limb is swollen, painful, colorless, in short that phlegmasia dolens is present, I feel satisfied that she is safe, and freely express this opinion to her

* Op. Cit. pp. 83, 84.

friends." Let any one read Dr Hull's work on this disease, attend to his cases, and especially to their termination, and it seems hardly possible that he should arrive at the doctrine of its identity with phlebitis. In the time of attack; the suddenness of the attack; the violence of the immediate symptoms, and alike of those which were precursory; the frequency and suddenness of death; all these, and other like facts, seem almost conclusive against the doctrine which has found such able support abroad. While this opinion is thus freely expressed, let it be as freely acknowledged that the discussion of this subject, with whatever doctrinal views, has brought to light most important facts. The profession every where is largely indebted to Dr Davis, to Mr Arnott, and to Dr Lee, to Bouillard and Velpeau, for their laborious and faithful investigations of these diseases. It is to be hoped that the zeal and talent, which have been so liberally directed to this whole subject will be continued to it. I close this part of the paper with a single additional remark, and it is not an unimportant one. Whatever may be the strictly theoretical views in regard to the pathology of phlebitis, and phlegmasia dolens, however opposite they may be, there is no diversity of opinion respecting their practical indications. The great purpose of all who have written about them, in regard to treatment, is to subdue, by most active means, a disease, which, like phlebitis, has been so very fatal; and, by like means, to diminish and shorten the sufferings of phlegmasia dolens.

The occasional suddenness of death, and the great, I may almost say general, mortality of inflammation of the veins, have been mentioned in the course of this communication. The attention of pathologists has been very particularly directed to the cause of death in this disease. This question is an interesting one, and it has received a variety of answers. Mr Hunter, in his Essay on Inflammation of the Veins, published in 1793, suggests, that where the veins remain unobstructed, pus may pass into the circulation, and this concurring with the general affection of the system, may destroy life." In another place Mr H. remarks, "But what is the particular circumstance which occasions their death, I have not been able to determine; it may either be, that the inflammation extends itself to the heart, or, that the matter secreted from the inside of the vein, passes along that tube in considerable quantity to the heart, and mixes with the blood." Mr Abernethy, Mr Hodgson, Mr Carmichael, and Sir Astley Cooper, do not differ from Mr Hunter in their views of the subject. According to Mr Travers, there is a difference between the cases in which pus is secreted, and those in which lymph only is effused. In the first, the fatal symptoms are those of common hectic; in the second, typhoid fever is produced. Modifications of these opinions have been offered by Breschet, Bouillaud, Ribes, Guthrie, and Arnott. Mr Arnott, in his paper already referred to, has collected a vast number of facts, and communicated much that has come under his own observation. He has been led to

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direct his attention very particularly to those diseases which arise in the course of phlebitis, and during, or in consequence of which the fatal effects of this disease so frequently manifest themselves. His paper is a most valuable body of morbid anatomy, touching the disease about which he writes. He has examined every organ in the frame with great care, described every morbid appearance, and placed upon permanent record the ravages of the disease. No part of the body has escaped its influences. The larger organs, those which are more immediately within the range of morbid sympathies, as the brain, the lungs, the liver, &c.—and parts differently situated,—if I may so speak, more remote, smaller, of various textures, and different functions, the eye, for instance, and the smaller, and larger joints,—all these parts of the frame have become seriously diseased in phlebitis, have manifested such disease during life, and have left unequivocal evidence of its severity to be discovered after death. The following extracts from Mr Arnott's paper, comprise its closing paragraphs.

"Such are the facts which have induced me to conclude, that the inflammations and diseases which arise in remote situations after *injuries*, whether of the extremities or of the head, or after the *process of parturition*, are attributable to the existence of phlebitis in the part of the body primarily affected.

"In concluding these remarks, the object of which has been to point out the relation between the primary and secondary affections in phlebitis, and to

establish the introduction of pus, or other inflammatory secretion, from the surface of the vein into the circulation as the cause of the latter, I have not felt myself called upon to advance any opinion as to the manner in which this cause operates, in giving to some of the secondary affections their peculiar characters,—I allude more particularly to the depositions of pus and lymph, unattended by those changes in the texture of the parts, which usually precede the productions of these fluids. I think it right, however, to state, that I must not be considered as regarding the matter deposited to be actually that which has been brought into the circulation from the inflamed vein or veins. The disease of the eye, in which pus is not deposited, and the affection of the joints, exclusive of other considerations, clearly prove that the question is no longer one of a translation of matter merely, but one which involves the very difficult subject of the pathology of the blood, especially the share which diseased changes in this fluid have in the production of those phenomena, which we are in the habit of comprehending under the term of inflammation."*

The question of the direct agency of phlebitis in producing death, still remains unanswered. Mr Hunter confesses his inability to decide it. Mr Arnott goes a step, and a very important one too, beyond his predecessors. But it may be still asked, how far his investigations of the secondary effects of phlebitis, so truly

* Op. cit. 123.

valuable as they are, do, though they carry us beyond the primary affection, bring us nearer to its true and whole nature. I have very recently met with some facts in regard to this subject, which seem quite new; and it would appear, that the observer was not acquainted with all that has been published in England relating to it. I refer to the observations of M. Dugés, Professor of Medicine in one of the French schools. M. Dugés has noticed depositions of a purulent fluid in the ovarian, or spermatic veins of the uterus in women, who have died of puerperal fever. A fact which had been announced by Dr Lee. But what is quite curious in these cases of M. D. is, that the pus could not be traced beyond those veins, which traverse the substance of the womb, and that the veins themselves were neither discolored, unequal in their caliber, or even thickened. He acknowledges, however, that he has in some other cases met with true phlebitis of the ovarian veins. A question arises as to the source of the purulent matter in the first mentioned cases. M. D. explains its presence in the veins, by absorption,—that it is secreted by the peritoneum which covers the womb, and it may be also by the cellular tissue, and that it is taken up thence by the veins. Here then is purulent matter in the blood vessels, and as no adhesions exist between the sides of the veins, this fluid must be intimately blended with the circulating blood. The only difficulty which presents itself here, is the fact that purulent matter should remain *alone*, (for no blood is found

with it in these veins,) in this portion of the venous system, when by the showing of M. D. no obstruction of the veins existed.*

The question of the cause of death in phlebitis has not been introduced here for the purpose of giving to it an answer. Let this be what it may, death takes place under circumstances of general disease and local lesion, quite too grave to leave any occasion for surprise at the event. Mr Arnott would seem to find a cause for the general disturbance, and local disease, in changes which the blood may have undergone, either from circulating in diseased vessels, or having mixed with it pus, or other morbid secretions from the veins themselves. It is altogether a subject of curious and very interesting inquiry. We divide, or tie up large arteries, in whatever situation, in some of the most common operations in surgery, but how rarely is there any inconvenience experienced from so doing? On the other hand, the smallest puncture of a vein, or a ligature passed about one, though done with the greatest care, and though the vessel be ever so superficial, may produce local disease, trifling it may be in extent, but which shall excite general, and remote local affections, of the most distressing and fatal character.

* Mémoire sur les traces cadaveriques de la Péritonite Puerpérale. Par M. Ant. Dugés, Professeur à la Faculté de Montpelliér. Jour. Hebdom. de Med. No. 70. Janv. 1830.

ARTICLE V.

PATHOLOGY OF CROUP.

BY A. L. PEIRSON, M. D.

Fellow of the Society.

The following fatal cases, occurring in my practice, in rapid succession, exhibit the morbid appearances occurring in this disease in a striking manner.

Case I.

Sept. 23d, 1829. A girl aged three years. Examination of the body eight hours after death. The larynx and trachea were removed, with the inferior part of the pharynx, and the whole contents of the thorax. On slitting up the trachea and larynx on the back part, the mucous membrane appeared covered with an exudation of lymph of a yellowish color, forming a complete factitious membrane. This appearance descended into the ramifications of the bronchia, although in these parts the false membrane was not so distinct. On cutting into the lungs, the ap-

pearance of the lymph in the minute ramifications of the bronchia was like that of *small yellowish worms*, which could be drawn out to the length of half an inch. The inferior lobe of both lungs was much engorged with blood, and nearly solid. The pharynx exhibited no mark of recent disease.

This child had sore throat, attended with tonsillar ulcers. The affection lasted a week, and disappeared under the topical application of nitrate of silver; immediately after which, she became attacked with the disease of the air passages.

Case II.

Oct. 22d, 1829. A boy, aged twentytwo months. Examination of the body sixteen hours after death. The contents of the thorax being removed, and the larynx and trachea slit open, a false membrane was found, of a thin and rather broken consistence, extending to the bifurcation of the trachea; below this, the bronchial tubes were found filled with a tenacious fluid, of the color and consistence of cream. Lungs healthy.

This child had catarrhal cough for some days, and on the 19th of October had a restless and feverish night. On the 20th, the cough was hoarse and laryngal, but his spirits, strength, appetite and breathing were good. On the night of the 20th, the breathing was slightly stridulous, and a profuse catarrhal discharge filled the fauces and nasal passages. On the 21st, the breathing was more stridulous, and

leeches and blisters were applied. The night of the 21st was one of great distress, almost approaching to suffocation. Partial relief was obtained by repeated emetics of turpeth mineral, and on the morning of the 22d the relief was nearly complete, so that he slept an hour without any sound in breathing. At noon the stridulous breathing returned, and was no way benefitted by leeches or emetics, vapor inhaled into the lungs, and expectorants of seneka, blood-root, &c. and at 5 P. M. he expired, without convulsions or struggles.

Case III.

Nov. 14th, 1829. A girl, aged twenty months. Examination of the body twentyfour hours after death. Pharynx, tonsils, uvula and back part of the tongue covered with a coating of white fibrinous substance, dense and easily peeled off, leaving the membrane it had covered of a deep purple color, and furnishing a complete mould of the shape of the parts. In the trachea, this same substance constituted a false membrane, dense, firm, and easily raised, but thin, and nearly transparent. It extended below the bifurcation of the trachea, but disappeared in the minute bronchial tubes. The lungs were perfectly sound.

I was first called to this child on the 9th of November. It was then restless, fractious, and had suffocating cough. On examining the fauces, the tonsils and uvula were found much swollen. A slight speck of a whitish substance were discerned on each tonsil.

This appearance gradually increased, till at length, at the time of the child's death, it covered the whole back part of the fauces. Bleeding, blistering, emetics and calomel were liberally used, with only palliative good effect. A solution of sulphuric acid, as strong as could be borne, was used as a topical application, and with the effect of lessening the tumefaction. The child died on the 13th, without convulsions.

Case IV.

Nov. 18th, 1829. A sister of the last mentioned child, aged three years and a half. Appearances on dissection, twelve hours after death.—The pharynx exhibited no marks of inflammation or apthæ. The larynx was lined with a dense membranous formation, of the thickness of common writing paper, perfectly smooth, and so firm as to be easily dissected from the whole inner surface of the larynx and trachea, so that I obtained a perfect tube of this substance, several inches in length. On separating this substance, which was closely adhering, the mucous membrane exhibited the marks of inflammation. Its polished appearance was entirely lost, and it was covered with bloody points, corresponding to similar points on the false membrane. This fibrinous substance extended into the ramifications of the bronchial tubes, and where this formation disappeared, a fluid was found of the appearance and consistence of thick cream. The lungs crepitated throughout, except the inferior lobe of the left lung, which was hepatized,

and presented on its surface the appearance of globular bodies of a yellowish color, not unlike miliary tubercles, which, when cut into, furnished thick pus. There was slight emphysema beneath the pulmonic pleura, an appearance I have observed to be not uncommon in the lungs of children who die with diseases creating a difficulty of respiration.

This child became affected with sore throat on the 12th of November, at evening. It had been feverish, and had hacking cough for a fortnight previously. On the 13th, the fauces were red, without white spots; and on the 14th, a small white streak was seen on each tonsil. This somewhat increased, and extended to the uvula, but was always readily removed by touching it with a bit of sponge dipped in diluted sulphuric acid. At this time there was cough, with a raucous laryngal sound, but no difficulty of breathing, or stridulous noise. The voice, however, was less audible, and the child *silent, and very unwilling to articulate*, a symptom, which, in diseases implicating the vocal organs, I have always found to be unequivocally bad. On the 15th, the breathing became stridulous, and this symptom increased till her death, at 10 o'clock on the evening of the 17th.

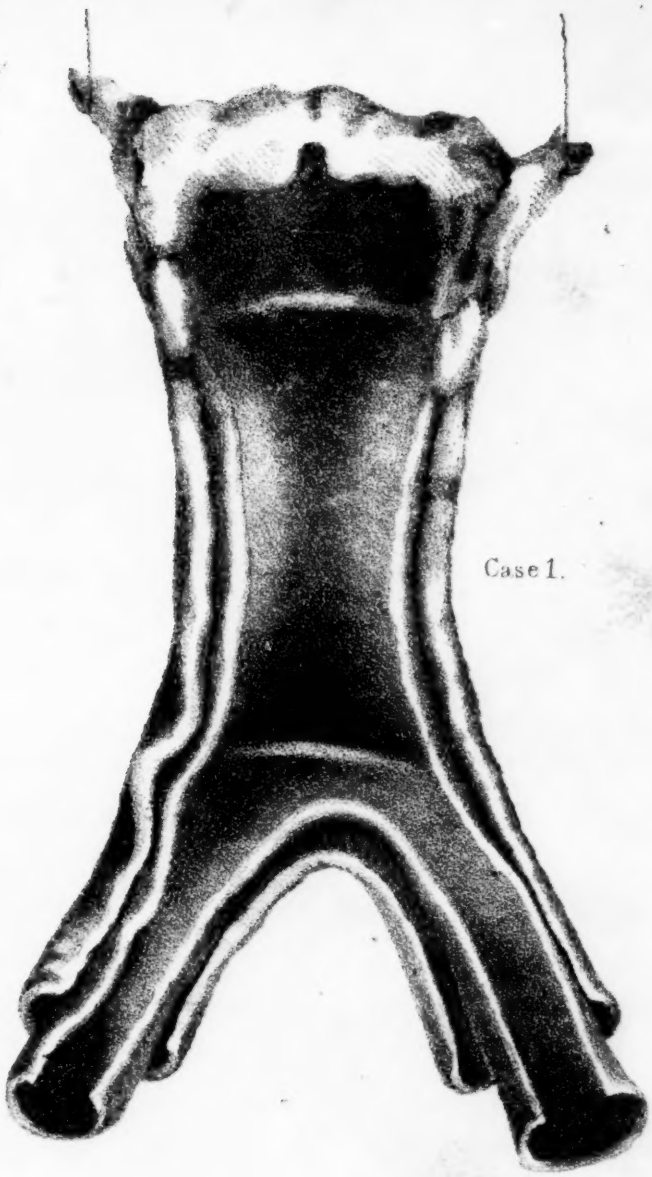
The false membrane of croup is not present in all cases, and hence it may be doubted whether the designation employed by Dr Good, Bronchlemmitis, will supersede future emendations of the name of this disease. A similar term was first employed by Michaelis, whose inaugural treatise, in 1778, "De An-

gina polyposa, sive membranacea," is a most learned and comprehensive summary of all that was then known on the subject. The polypus-like form, which the effused fibrine assumes, is more visible in the smaller ramifications of the bronchia. This appearance, as well as the tubular variety, is delineated in the plates to Baillie's Morbid Anatomy, (Fasc. 2. pl. 2.) The 1st and 2d figures of this plate, nearly resemble my preparations taken from Case I, and Case IV; but as these plates to the Morbid Anatomy are rare and costly, I have had the annexed drawing made of my own preparations.

ERRATA.

Page 74, 8 lines from bottom, for *Muriceau*, read *Mauriceau*.
7 lines from bottom, after *milk*, insert a comma. After *Puzos*, insert a semicolon. Next line, after *system*, insert a comma.
Page 80, 5 lines from top, after *In the time of attack*, insert *of the latter*.
16 lines from top, for *Bouillard*, read *Bouilland*.
Page 81, 4 lines from bottom, for *Bouillaud*, read *Bouilland*.

False Membrane of Croup



Case 1.

Case 4

N. Lakeman del. Sonet. Lith. Co. Edwards Lith.

ARTICLE I.

REMARKS ON PUERPERAL FEVER.

BY A. L. PEIRSON, M. D.
Fellow of the Society.

Among the morbid affections peculiar to the puerperal state, inflammation within the abdomen is among the most dangerous and dreaded. The complaint makes its appearance in a neighborhood only at long intervals of time, so that a practitioner may have become largely experienced in other diseases without having seen a case. This consideration, mainly, has induced me to offer a few facts and observations drawn from my own practice for the last two years. The opportunities of comparing the morbid anatomy of cases of puerperal fever with the symptoms in such cases, have been exceedingly rare, and to this is to be traced the great variety of opinions promulgated as to its proximate cause. Mr. Hey of Leeds, who records his want of success in the first cases which he treated, in the epidemic at Leeds, in 1809, with most frank and honorable fidelity, gives us no light as to the morbid appearances by a single dissection. His seven first cases were all fatal, and of his first fourteen cases three only recovered. After witnessing

some good effects from purging in the treatment of this eighth case, which was the first that recovered, and from perusing the treatise of Dr. Gordon of Aberdeen, Mr. Hey began to doubt whether the early and sudden sinking which occurred in these cases was evidence of a typhoid or putrid state, and ultimately used venesection and other remedies appropriate to inflammation with almost complete success.

The publication of Mr. Hey's book and some others which followed, gave a decided character to the treatment of puerperal fever. Peritoneal inflammation was for the most part looked to for explaining all the symptoms. Within the last few years, there seems to be a disposition to admit the occurrence of cases in which contra-stimulant remedies, especially bleeding are inadmissible, and that there are numerous cases of a mixed character in which great caution must be used in applying debilitating remedies, although they may be required to a certain extent. The recent works of Marshall Hall, and Dr. Gooch upon the diseases of females are exceedingly rich in discriminating details. But the treatment of the disease, especially in regard to the use of blood-letting is still far from being settled, and it will be useful to consider some circumstances on which this indecision depends.

In the commencement of this disease there is often great depression and apparent debility, without any marked pain or increase of vascular action. And this is not owing to a congestive state of

the blood-vessels, such as is relieved by bleeding. On the contrary, bleeding is borne very ill, and patients faint with a very slight loss of blood. The explanation seems to be, that the nervous system is overpowered by sympathy with the morbid impressions made upon a membrane so extensive as the peritoneum. This extensive sympathy is distinctly witnessed in all cases in which a foreign body is admitted to the cavity of the peritoneum; and the symptoms in cases of perforation of the intestines by ulceration, and in those where there is a sudden effusion upon the peritoneum of the confined matter of an abscess, are not unlike those of the first stage of puerperal peritonitis. There is the same sunken countenance, the same small, frequent, feeble pulse, the same restlessness and irregular distribution of animal heat. There is no condition of disease in which the nervous system is more powerfully acted upon than that in which the contents of some part of the alimentary canal have been suddenly let in upon the peritoneum, in consequence of the intestine becoming perforated by ulceration or violence. The following brief relations, will recall to the experienced reader many similar instances, and will serve to illustrate the shock by which the vital powers are prostrated in the commencement of puerperal fever, and which is only to be met by cordials and stimulants.

1. A man of about fifty years of age had been suffering for many weeks from a schirro-contracted rectum. On the day of his death he appeared feeble, but

not otherwise disordered, when suddenly he became attacked with severe pain and tenderness *all over* the abdomen. He had sense of sinking and faintness at the epigastrium in an extreme degree; frequent, small, and feeble pulse; great restlessness; cold extremities, and death in twelve hours from the attack. I examined the body the next day in company with his attending physician, and found an ulceration through the rectum, just above the contracted part through which had passed several balls of fœcal matter of an inch in diameter.

2. In the following case the superior part of the canal gave way. A young woman, a domestic in a family, in the Autumn of 1829, was attacked with vomiting and pain in the epigastrium. She had a very anxious countenance, rapid, small, feeble pulse; coldness of the extremities, and great restlessness. I visited her, in consultation, in the afternoon of the day on which she first gave up her work, and she died during my visit. On examining the body the next day, the stomach was found perforated by a round hole about three-fourths of an inch in diameter, and not surrounded by any marks of inflammation, by which the contents of the stomach had been let in upon the peritoneum. The perforated portion of the stomach is preserved in a collection of morbid preparations in this town and closely resembles the representation of a perforated stomach in the plates to Baillie's Morbid Anatomy, (Fasc. 3. Pl. 5. Fig. 2.)

3. The following is a case of still a different kind,

producing analogous symptoms. A fine lad of fifteen years old was suffering under an inflammation of an obscure kind, but evidently seated in the abdomen, which was tender to the touch, especially in the left iliac region. For this affection he had been bled, leeched, and blistered, with alleviation of the symptoms, when very suddenly, August 10th, 1828, at four o'clock, A. M. he became affected with a severe rigor, and at six o'clock was attacked with acute pain and extreme tenderness of the abdomen, accompanied by great paleness, cold extremities, pulse 140, small and feeble. Death took place nine hours from the access of the rigor. On examination of the body, I found a considerable abscess had been formed by the side of the rectum, low down in the pelvis, bounded in front by the bladder and abdominal parietes, and covered by the small intestines, which formed the upper wall of the abscess. The cavity of the abscess, which was capable of holding a pound, was found partly empty, and pure pus in contact with the intestines, the peritoneal coat of which was but slightly altered in appearance. The symptoms just previous to death were occasioned by the bursting of the abscess. Every one who has seen the rapid sinking which occurs in bad cases of puerperal fever, will admit the similarity between the symptoms in these cases and those of the cases I have brought forward.

All practitioners perceive and admit the necessity of active treatment in this highly dangerous disease. But active treatment to be useful, must be applied

early in the disease;—and here lies the principal difficulty. For the peritonitis of the parturient condition frequently comes on so insidiously, and is so liable to be confounded with many of the slight disturbances and even the usual phenomena of this condition, that however disposed the practitioner may be to strike a blow which will quash the disease at the outset, he is prone to wait for some unequivocal symptom to determine the diagnosis, which perhaps does not appear till the disease has gained a formidable advantage. I know of no help for this, except what is to be found in discriminating tact and experience on the part of the physician. There is certainly no one symptom which can be depended on as a guide to active treatment. The whole case, in all its circumstances, must come under consideration, and even with the best opportunities to consult and deliberate, he is a happy man who can say he never was puzzled.

Tenderness on pressure is seldom a sure criterion. Almost every woman will flinch from pressure for three or four days after suffering parturient pains. And in more than one severe case of puerperal peritonitis, I have known the patient refuse to acknowledge that any pain or soreness was felt on pressure.

Pain is a very uncertain mark, frequently not appearing till the last stage, if at all, and when it does appear in the early stages, is easily confounded with after pains.

Rigor is very commonly observed to precede the

other symptoms, and my own experience does not remind me of a case in which this symptom was absent. But it also precedes the coming of the milk, and in irritable habits precedes or accompanies every little exertion, and the performance of any function, such as micturition, digestion, &c.

Pain of the head, which usually accompanies the disease of which we are speaking, is also a concomitant of many slight indispositions. Suppression of the lochiæ is not always a symptom which exists in the early stage of puerperal fever, and were it otherwise, the discharge varies so much in different women, and is usually so much diminished just before the appearance of the milk, that it is not of the highest value as a diagnostic symptom.

The sudden retrocession of the milk is more to be depended on, but in at least one fatal case, I have known this secretion continue with variable quantity till death.

The tongue is usually coated, but in some cases is entirely clean. *Extreme thirst* and *a most pungent heat of the skin*, oftentimes accompanied with *profuse perspiration*, and in some instances with miliary eruptions, have occurred to me as among the most certain symptoms.

The observation of the pulse is of the very first importance. This is always increased in frequency at last, if it be not so in the first of the disease; and its becoming less frequent is among the best signs of recovery that can occur. On finding a patient a few

hours after delivery with a pulse of 100 and upward, I am immediately led to inquire if she has experienced rigors, if she is thirsty, has headache, heat of the skin, interruption of sanguineous discharge, tenderness on pressure of the abdomen and gastric sinking. On the answers to these questions a tolerably correct, although not infallible diagnosis may be founded. The worst cases usually occur before the secretion of milk has commenced, but if milk has appeared it is highly important to know if its secretion continues or is suspended.

Marshall Hall has described a set of cases under the title of a 'Serious Morbid Affection,' in which there is much tenderness of the abdomen, acute pain, and many other symptoms in common with puerperal peritonitis, and which he maintains do not depend on inflammation but upon irritation, principally produced by the fœcal contents of the large intestines. These cases are aggravated by bleeding and drastic purges and relieved by laxative enemata and mild opening medicines, while the patient is supported by cordials and tonics. Of the excellent adaptation of Mr. Hall's remedies to relieve the symptoms, I have no doubt; but it by no means follows, that these are not cases dependent on peritoneal inflammation, because they require forbearance from debilitating remedies. Is not inflammation of the peritoneal coat often a sufficient reason why the fœcal contents of the alimentary tube are retained? In fact, is it not a very common case, that large quantities of solid fœcal matter will

be parted with, so soon as the inflammatory state of the peritoneum, which has retarded peristaltic action, has yielded to bleeding and other remedies? If this is so, it may be that Mr. Hall, in at least some of his cases, has transposed the cause and the effect.

There is also a spasmodic affection of the uterus, which may mislead us in diagnosis, a case of which I shall give in the sequel.

The prognosis of puerperal fever is not without difficulties. I do not, however, intend to point them out, but to call attention to one very common source of mistake in fatal cases. There is a deceptive amendment, which occurs after effusion takes place in the abdomen. The pulse, tongue, countenance, and sensations of the patient improve, and the friends and oftentimes the physician, join with her in expecting a recovery. This is the same temporary relief of the distended vessels, which is found to take place in croup and other inflammatory diseases, in which serum or fibrin are poured out.

The favorable termination of the disease is sometimes accompanied by diarrhœa, which although in part induced by the medicine we use, especially by large doses of calomel, is nevertheless kept up spontaneously, and is probably critical.

In speaking of the treatment of this disease I have no reason to dissent from the established principles adapted to the treatment of inflammatory diseases. In any case which I have seen, where, following a rigor, there is abdominal pain, soreness, hard pulse,

heat of skin, and coated tongue, a full bleeding will do more to arrest the disease than any other remedy. Cathartics, especially of calomel, large enemata, sinapisms and blisters, come next in importance. Leeches are of great value, especially where the pain is circumscribed. Cordials are usually administered by the attendants on the access of the chill, and as far as I have observed with good effect. The use of occasional doses of opiates has seemed to me admissible in every case, and where symptoms of sinking and depression exists, a combination of opium, ether, and ammonia has been particularly beneficial. When the bowels have been urged by purgatives to some degree of exhaustion, opiate enemata have been particularly beneficial. Fomentations, when skilfully managed, have appeared to co-operate in relieving pain. The oil of turpentine is a singularly efficacious purge in cases of accumulation in the large intestines. Some of my medical brethren, of very extensive experience, and in whose opinion I place the greatest reliance, believe this remedy may be relied on as the principal one in the treatment of the disease. My own experience does not warrant me in speaking so confidently of its good effects. It certainly has not maintained the high character given it by Dr. Brennan, of Dublin, who called the attention of the medical public to its use in 1814. A critical analysis of his pamphlet may be found in the London Medical and Physical Journal, Vol. 32, page 403.

In patients slowly recovering from puerperal fever,

the choice of a laxative is often a point of great importance. It sometimes happens, that medicines which are very mild and gentle in their operation, succeed better in clearing the first passages than more brisk cathartics. I have found fifteen or twenty grains each of powder of rhubarb and magnesia in syrup of ginger and distilled mint water repeated every three or four hours till effect, a most useful and agreeable prescription.

The *early* administration of tonics is particularly called for in this disease. The frequent pulse, the heat of the skin, and the general restlessness will sometimes, in the late stages of the disease, when it is disposed to a favorable termination, be increased by the exhibition of evacuants, and yield kindly under the administration of tonics. This is similar to what is sometimes observed in opthalmia and other external inflammations, in which there is frequently a period when the treatment may be advantageously changed from the debilitating to one directly opposite. The sulphate of quinine presents an admirable article for a tonic prescription in these cases, and may be combined with myrrh, with sulphate of iron, and with laxatives, so as to present very neat and efficacious prescriptions.

There is one subject connected with puerperal fever, which has not yet received any considerable share of philosophical examination. I mean the question of its contagious character. I will not go minutely into the long discussion this question would

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call up, as I have not attempted in these remarks a history of the disease, but only to call the attention of readers to particular points in the pathology and treatment of the disease, such as my own experience has (painfully in many instances) strongly impressed upon my own mind. The first remark I have to make on this subject is, that nearly all the cases of puerperal fever which have happened in this town, and all the fatal cases, as far as I know, have occurred in my practice. The first case of puerperal fever which I ever saw was about the 1st of January, 1829, at which time there had occurred in my practice more than five hundred births. This case was fatal on the fourth day. I did not inspect the body after death. The two next cases of delivery which I attended were likewise fatal cases of puerperal fever. I have annexed the dissection of one of these cases, which appeared at the time in the Boston Medical Intelligencer. The two next women I attended had the disease severely and recovered. These cases all occurred in the first nineteen days of January. After this I had no case occur, although I continued to attend the delivery of my patients, till March, when I had two cases of moderate severity, cured by a free bleeding, a purge, and blisters; and in July a fatal case occurred, the principal phenomena of which I have described in the sequel. This patient was brought to bed on the 26th of June. On the 25th, I attended another woman who had the disease with great severity and recovered. Up to

this period, I am not informed that a single case had occurred in the practice of any other physician. Since that period, I have had no fatal case in my practice, although I have had several dangerous cases. I have attended in all, twenty cases of this disease, of which four have been fatal. I am not aware that there has been any other case in the town of distinct puerperal peritonitis, although I am willing to admit my information may be very defective on this point. I have been told of some 'mixed cases,' and 'morbid affections,' after delivery. The very great importance of this subject to every practitioner of midwifery must be my apology for introducing matters of personal concernment. Having candidly and fairly stated the fact, I may be allowed to offer my opinion, which can easily be separated from my statements, by those who do not agree with me. After the best examination I have been able to make, I have settled my own belief, that the disease is not contagious. The facts and considerations upon which I rest this belief cannot all be brought up in this brief communication. But I cannot reconcile to a belief in the contagiousness of the disease, that consulting physicians, and attending nurses, have never happened to communicate the disease; that minute dissections made in the presence of several practitioners have never spread the contagion; that women who have been confined in the same houses and the same rooms with those who died have not had the disease; that long intervals elapsed between my cases in which

many births occurred without the disease appearing; that I had cases occur when I took the most minute precautions as to change of dress, &c., and the reverse when I neglected all precaution. Still, however, the facts are remarkable, and I leave them to the explanation of more experienced practitioners. It is certainly true, that in the history of almost every epidemic puerperal fever we learn that most of the cases were attended by one practitioner. Dr. Armstrong remarks, (Ed. Med. and Surg. Jour. Vol. 10, p. 446,) that in the epidemic in Sunderland, in 1813, all the cases were attended by one practitioner, Mr. Gregson, with three solitary exceptions. This gentleman lost four patients in one week. Dr. Armstrong attributes these facts to contagion.

The cases which follow, and which I have compressed as much as possible, will serve to exhibit the post mortem appearances, to give an instance of successful treatment by the usual remedies, and to call the attention of practitioners to a case important to be distinguished from inflammatory affections.

CASE I.

The subject of the following case was a lady of fine constitution and previous good health, aged thirty-one years. She was brought to bed of her fourth child January 2d, 1829. The labor was easy, natural, and no untoward circumstance occurred. Having been troubled with after-pains at the birth of her last child, she was ordered an opiate. Two doses of

twenty drops Tr. Opii produced comparative ease. There was no unusual pain, soreness, or distention of the abdomen. In the afternoon of the second day, she had a slight rigor, which was dispelled by some warm gin and water, and the secretion of milk in usual quantity immediately followed. These were the customary symptoms of her previous confinements. On the third day she took half an ounce of Epsom Salt, which produced satisfactory movements of the bowels. On the morning of the fourth day, she complained of slight oppression at the stomach, and depression of spirits; she was relieved by a little peppermint, and in the afternoon sat up for a short time, and told the nurse she never felt better in her life. On the morning of the fifth day, she awoke with considerable oppression and slight nausea, for which the nurse administered half an ounce of wine of antimony, which was followed by free vomiting of a profusion of green and yellow bile, and with great relief. At noon of this day, I found her with a pulse of 80, soft and moderately full, a clean tongue; she complained of heat and burning of the throat, and was somewhat exhausted by the emetic, which had not entirely ceased operating. She took a draught of infusion of chamomile, after which the vomiting ceased till it was renewed on taking a diaphoretic medicine at night, and it continued at intervals till her death. At ten o'clock at night, the pulse was 144, soft and feeble, the respiration hurried, the voice feeble and indistinct, and the sensorium affected with

a peculiar kind of talkative delirium, resembling the phenomena of ebriety. The abdomen was now slightly tumid and tender, but there was no complaint of pain. These symptoms continued till ten o'clock of the next day, the sixth from her confinement, when she expired, exhausted, and with very little apparent distress. The secretion of milk and flow of lochiæ were natural in quality and quantity on the fifth day. The tongue continued clean and moist to the last. The patient had a careful nurse, who had been her attendant in all her previous confinements, was surrounded with the comforts and conveniences of life, was of a cheerful disposition, and had committed no error in diet or management. The second and third nights and days after her confinement were the coldest we have had for two years. It has been observed, (Gardien *Traité d'Accouchemens, tom. 2. p.* 368,) that more cases occur in winter than in summer, and hence the influence of cold is reckoned among the exciting causes of the disease. But in this case the patient was every way well protected, and the usual phenomenon of the effect of cold, diminished secretion, did not occur.

Pathological phenomena, two hours after death. Abdomen tumid, external appearance otherwise natural, except purple appearance of back and nates, from gravitation of blood. On opening the cavity of the peritoneum, a quantity of limpid, straw-colored fluid escaped. About a pint of the same fluid, mixed with whitish threads of lymph, and having a little purulent

sediment, was found in the cavity. Intestines much distended with flatus. Peritoneum, both of parietes and intestines presented a mottled appearance, from a turgid state of the blood-vessels, apparently containing venous blood. The omentum was thickened and contracted. Patches of lymph were observed, especially on the surface of the viscera, lying in the pelvis; a large patch was found on the posterior part of the uterus. Mucous coat of the bowels and the bladder exhibited no appearance of disease. Liver natural, except paler than usual. Stomach contained a portion of yellowish fluid, and had on its mucous surface a large number of small purple spots, principally about the great curvature; the largest collection of these was about the size of a dollar. The uterus was about the size of a common cocoa-nut, its walls moderately firm, and exhibiting, as to its size and feeling, the appearance which might be expected on the sixth day from parturition. Its internal surface was lined with a gluey exudation, easily wiped off. The attachment of the placenta was at the fundus, and there was a slight purple appearance at this part There were several purple spots at the os tincæ, larger but similar to those in the stomach. The right ovarium was about the size of an almond, and darker colored than natural. The fimbria of this side was of a deep purple. There was no putrefactive smell or appearance in any part examined.

CASE II.

The subject of the following case was a lady previously in good health and of a sound constitution. She was delivered on the 26th of June, 1829, of her third child, after a short labor, in which nothing unusual occurred. The secundines followed naturally within fifteen minutes. Her former labors had occurred in my care, and had been natural, and her recovery rapid. The delivery occurred at sunset, and she passed a comfortable night. She dreaded after-pains, which she had experienced with her last preceding confinement, and took two grains of opium during the night. After-pains, however, continued for forty-eight hours, the uterus feeling hard and contracted. The lochiæ were very abundant.

On the 27th she experienced headache, which was attributed to the opium. She took castor oil and some diaphoretic medicine, and passed a tolerable night.

On the 28th she had no remarkable symptoms and the headache was not severe.

On the 29th after rather a restless night, she complained of more headache, with uneasy sensations at the stomach. The breasts were filled with an abundant flow of milk. She had this day a purge of calomel, followed by oil and leeches to the head, which bled freely and instantly relieved the pain. There were on this day some slight rigors, which were attributed to the flow of the milk. The pulse not remarkably altered, the skin moist and warm.

On the 30th there was some headache, for which, although not severe, there were leeches applied, with immediate relief. There had been no pain or unusual tenderness in the abdomen. Although there was some shrinking when the uterus was firmly pressed upon.

On the evening of the 1st of July she experienced some chilliness, with a sense of oppression at the epigastrium and slight nausea. Chilliness was followed by great heat of the skin and profuse sweating. Pulse 120, of moderate force and hardness. Was bled to ʒ viij, when she became faint. Took pulv. ipec. with ant. tart. and vomited freely with relief of the gastric oppression and nausea. Took ten grains of calomel, to be followed with castor oil in the morning.

On the 2d July complained of no pain, pulse 115. Has had several dejections, loose of natural color. Complains of sense of heat at the stomach. Was ordered emp. cantharid. to the epigastrium, and powders of calomel, pulv. antimonial. and camphor to be taken every four hours, with a diaphoretic draught in the intervals.

On the 3d the symptoms continue. Slight fulness of the bowels. Abdomen bears pressure without pain, except when applied distinctly to the uterus or ovaries, especially of the left side, in which parts a soreness is felt. The whole surface of the abdomen below the umbilicus was freely vesicated. Tongue which had hitherto been clean, slightly coated with

brown fur at the back part. Lochiæ nearly disappeared, flow of milk rather diminished. Passed a restless night partly from being disturbed by the noise of cannon, &c. Evacuations from the bowels rather frequent, small and fetid.

On the 4th had some appearance of amendment, pulse 112, skin cooler and moist, tongue moist. Passed a tolerable night, and on the 5th expressed some feelings of amendment. Pulse 108, abdomen rather full, and when pressure is applied, complains of pain only from the vesication. Can lie on either side, but prefers to lie on her back. Has some degree of pain in the umbilical region.

On the morning of the 5th, at four A. M. was seized with a rigor and coldness of the extremities, extreme nausea, with sour and bitter eructations, followed by severe pain in the hypogastric region, shooting up to the stomach. Pulse 160, very small and feeble. Countenance pale and sunken. Took ten grains of pulv. ipec., and after vomiting, 120 drops of acet. opii, had seven leeches applied to the hypogastric region, and renewed vesication of the superior parts of the abdomen. Pain was checked by the opiate, and ceased entirely after two hours. Nausea continued in considerable degree. It was agreed, in consultation, that she should take sulph. quinine gr. ij. every four hours, and intermediately at the same intervals, four drops of Fowler's min. sol., to be allowed brandy and water till the heat of the skin and fulness of the pulse prohibited. Opiates pro

re nata. Under this course, the patient rallied somewhat, but without essential amendment. At the same time, she was ordered a julep of carb. sodæ, tr. cinnam., powdered charcoal and water, to correct a sour and bitter taste of the mouth, with unnatural fetor of the alvine discharges.

On the 6th, at sunrise, same appearances continue; can turn over and lie on either side, and breathe with little or no difficulty. There is occasional hiccough, and the convulsive action of the diaphragm is attended with sharp pain. At other times does not complain of pain, nor of much soreness upon pressure. She continued to sink without much change in the symptoms, till ten o'clock, A. M. when she died.

Examination of the body twelve hours after death. Abdomen more tumid than after delivery, but by no means tense. On opening the abdominal cavity the peritoneum *lining the parietes* was natural in appearance. Where it *covered the intestines*, it uniformly exhibited marks of recent inflammation. The small intestines were glued together with an exudation of lymph. The omentum was thickened. The peritoneal covering of the uterus was the only part where this membrane exhibited by its redness any increased vascularity. The ovaria were enlarged and soft, and were covered, especially the left, with lymph. The fimbriæ were of a deep purple color. The abdominal cavity contained about a pint of serous fluid mixed with flocculi of lymph. The surface of the liver was covered with an exudation of the same substance, so

smooth and uniform as to constitute a complete factitious membrane. The substance of the uterus when cut into was pale, firm, and its walls about an inch in thickness. Its cavity contained a small quantity of dark, bloody mucus without fetor. The part whence the placenta was detached, was plainly distinguishable. Its internal surface exhibited no marks of disease, and its size was not thought to be unnatural. The internal surface of the stomach and duodenum, and of the other intestines as far as inspected, was free from any marks of disease. The intestines were nearly empty. The mucous coat of the bladder exhibited no mark of disease.

The most obvious remark in this case is, that the local symptoms were greatly disproportionate to the actual severity and danger of the disease. The pain was never severe till the morning of the sixth, when it lasted but for one hour, and was quieted by twenty drops of acet. opii. The lochial discharge continued freely for six days, and was profuse for the first three or four; and the day before death reappeared in a moderate degree. The secretion of milk, which was at first abundant and regular, was never wholly suppressed, although its quantity varied with the state of thirst, perspiration, evacuations, and other obvious causes, and at the time of the patient's death the breasts were distended with milk.

CASE III.

Mrs. C. aged about thirty years, was brought to bed of a fourth child, Sunday evening, Nov. 14th, after a very short, easy, and perfectly natural travail.

On Monday, 15th, she took ol. ricin. ʒ ss. and had several stools. Nothing unnatural occurred this day, and the flow of milk commenced at evening.

On Tuesday, 16th, appearances were perfectly favorable, as in her former lyings-in.

On Wednesday at my morning visit, the same favorable state continued.

On Thursday morning, 18th, I found her much changed, and received from the nurse the following account. During the afternoon of Wednesday, she felt some general uneasiness, and at eight, P. M. had a rigor, which was followed by moderate pain in the abdomen. This pain increased till midnight, when it was most excruciating, and produced difficulty of inspiration. There was considerable thirst, and some degree of headache. The nurse had given some hot tea and a cordial during the rigor, and in the morning a dose of oil. The pain had become more endurable since midnight. My visit was at ten, A. M. when I found the pulse 120, rather full, skin hot, sweaty, and the secretion of milk nearly suspended, the lochiæ not much diminished or altered; the abdomen rather tumid and exquisitely tender; tongue moist and slightly coated. There was pain all around the abdomen, shooting up the sides, and

affecting the breath. I took sixteen ounces of blood from the arm, when some degree of fainting came on, directed six large leeches to the abdomen, and to have the bleeding from their bites encouraged by a large warm poultice. I directed twelve grains submuriate of mercury to be taken immediately, to be followed in two hours by the following purging draught. ℞. Ol. ricin. ol. terebinth, syr. simp. ana ʒ i. misce. s. ʒ ss. omn. 2d hora. Some relief was obtained by the bleeding, leech bites bled very freely, five dejections followed the exhibition of the first dose of purging draught. These were feculent, and healthy looking, and each contained some portion of fecal stool. At five, P. M. she was directed to take half a grain of tart. antimon. every hour till some degree of nausea is produced, and to take once in four hours one of the following powders. ℞. Subm. hydr. ʒ ss. Pulv. opii gr. iij. Pulv. digitalis gr. 10. Tart. antimon. gr. ij. Mix. div. in chs. No. xij. Let a blister 10—10. be applied to the abdomen.

At ten, P. M. took fifteen drops acet. opii.

Friday, 19th Nov. seven, A. M. Has passed the night with considerable sleep and without much pain, except griping in the bowels, which she plainly distinguishes from the pain of inflammation. At about five, A. M. began to have pain in the right iliac region, affecting the respiration, this pain has now become quite severe. Pulse 130, moderately full and strong. V. S. to fourteen ounces, when slight faint-

ness came on. Sinapism to the seat of the pain. Has had no nausea from medicines. Let the powders and the solution be continued as before. Has had five more fluid dejections, rather small in quantity. The blister rose well, and the tenderness of the abdomen has somewhat lessened; its tumefaction still considerable, but not increased from yesterday. At ten, A. M. the griping pain continuing, with one or two small dejections, she was ordered an enema, with seventy drops tr. opii. This procured considerable quiet rest and relief of the griping pain. At eight o'clock, P. M. gums appear slightly swollen, and feel sore—let the powders be omitted till morning, continue solution. Let her take twenty drops acet. opii at ten o'clock.

Saturday, Nov. 20th, eight, A. M. Passed a tolerable night. Did not take the antimonial solution, as the stomach felt unpleasantly. Pulse 110. Tongue moist, slightly coated. Secretion of milk has returned, and breasts are hard. Has had no pain and bowels not so tense. No dejection. Let her have two tablespoonfuls of the terebinthinate mixture ordered on the first day. The powders to be given only at night and morning. Omit the solution. Eight o'clock, evening. Was hot and restless in the middle of the day. Pulse 118, soft and full. No dejections. Let her have a common laxative enema, and after its operation twenty drops acet. opii.

Sunday, Nov. 21st. Had several dejections from the enema, not copious. Pulse 110, rather full and

soft. Passed rather an uneasy night. Gums uncomfortably tender. Omit powders. Let her have infus. quassiæ ʒ ij. every four hours. Let her have beef tea. Let her have an opiate at night.

Monday, Nov. 22d. Had several dejections yesterday, and a good deal of forcing and ineffectual inclination to stool. Passed a very uncomfortable night, in consequence of the distended state of the bladder, no urine having passed for the last thirty hours. Three pints of urine were drawn off. Pulse 100. Abdominal distress much abated, and general appearance improved. Continue infusion and opiate at night.

Tuesday, Nov. 23d. Had two dejections, considerably large, in the night, and has frequent inclination to stool, with only small, liquid, fetid evacuations. I learnt to-day for the first time, that in the first stools which the patient had had after her confinement, large quantities of raisins were found, and that occasionally since, the skins and seeds of raisins continue to appear. The patient confesses that a fortnight before confinement she had indulged in eating a great deal of this fruit. She has to-day a good deal of gastric sinking and faintness after every evacuation. Pulse 104, soft and full, and easily compressed. Let her take a tablespoonful of the following mixture once in two hours. ℞. Camphor. ϑi. Ammon. Carbon. ʒ i. Ol. Anis. gtt x. Spt. Ether. Sulph. ʒ i. Pulv. Acaciæ ʒ i. Aquæ Puræ ʒ vss. M. f. Mistura. Omit the infus. and take one grain of

sulphate of quinine in a little brandy and water every four hours. Let her have twelve drops tr. opii. after every dejection.

Wednesday, Nov. 24th. Has had several dejections during the night, but without faintness. At five, P. M. removed two pints of urine with catheter. General appearance convalescent. Continue quinine. There has been a slight secretion of milk for the last three days. Lochiæ nearly ceased.

Thursday, 25th. Pulse 80, soft and feeble. Has had no alvine discharge since night before last. Let her take two tablespoonfuls of the following mixture, every three hours, till the bowels are moved. ℞. Pulv. rhei, magnesia calc. ana ʒ i. Syrup Zingiberis ℥ ss. Aq. menth virid. ℥ iss. Aq. puræ ℥ ij. Misce. Afterwards to continue the quinine. A small quantity of urine has been spontaneously evacuated several times since yesterday.

Friday, 26th. Three doses of the mixture have been taken, and the bowels have been thrice moved. Feces are of tolerable consistence and natural color. Continue medicine. From this period the catheter was dispensed with, convalescence went on slowly, and at the end of three months the patient was fully recovered, the secretion of milk not having been entirely lost.

CASE IV.

Spasmodic pain of Uterus, simulating Puerperal Fever.

Mrs. C. T. J. was brought to bed of her seventh child, at one o'clock, A. M. of Monday, the 25th of October. She suffered considerable flooding, which was checked by powder of ergot and moderate pressure. She was made faint by loss of blood, and her pulse was much reduced in volume. The pains brought on by the ergot were moderate, but sufficient to contract the uterus to its usual size. During the day of Monday, she was somewhat restless, thirsty, and uneasy, had moderate after-pain, and some degree of tenderness of the abdomen. She passed a tolerable night, but did not obtain much refreshing sleep. At six o'clock, on Tuesday morning, she got a dose of ol. ricini, which operated well; one dejection. At nine, I made the usual daily visit, when I found her with some degree of remitting pain low in the pelvis, moderate tenderness of the abdomen in this region, and the uterus hard and firm, and rather small within the pelvis. She had experienced a considerable degree of headache ever since her confinement. At one o'clock I was again sent for, and found that her pains had been increasing ever since my visit, and were now excruciating. They were described as cutting pains, as if a knife was piercing some organ in the pelvis. The tenderness of the abdomen was extreme, so that she screamed on the

first touch of the hand. The uterus could be felt in a hard contracted ball. Pulse very small, 120 in the minute. Headache increased, and thirst extreme. Had experienced no distinct rigors, but remembers to have been chilly for a long time after her child was born. I administered twenty drops of acet. opii; directed a pint of hot water to be administered as an enema, and the bowels to be fomented with water as hot as could be borne. Half an hour after the opiate she took one tablespoonful of a mixture of equal parts of ol. ricin. ol. terebinth. and simple syrup, to be repeated every hour till the bowels should be moved. I visited her again in three hours, when I found her free from pain, dozing, her skin moist, her headache relieved, and the tenderness of the abdomen nearly vanished. The uterus now could be felt, full, soft, risen up out of the pelvis, and twice as large as when contracted in the morning. The milk has not yet made its appearance, and the lochiæ are abundant and have been uninterrupted; their flow was rather increased during the paroxysms of pain.

The next morning, Wednesday, 27th, the symptoms were much improved;—pain gone, soreness slight, pulse 100, more full and soft. Enemata were administered, and several dejections followed. Had had several dejections on Tuesday night from the oil. A coated tongue, and slight headache continued for twenty-four hours after this, but by the use of enemata, with a very slender diet, she continued convalescent, and on the eighth day from her confinement

was as well as ever she had been in the same time. The enemata which were exhibited every morning for several days brought away solid feces, but not in such large quantities as have sometimes been observed in parturient cases.

Salem, May 11th, 1831.

ARTICLE II.

CASE OF MECHANICAL OBSTRUCTION OF THE JEJUNUM.

BY J. STIMSON, M.D.
Fellow of the Society.

On Friday evening, Oct. 29, 1830, I was called to visit G. W. a lad, eleven years of age, and received the following account of his indisposition, from his mother, a careful, watchful, intelligent woman.

"Saturday, Oct. 23d, George was at his uncle's store, and ate freely of chestnuts, figs, and raisins; was afterwards oppressed and sick at his stomach. Sunday morning she gave him a portion of senna and salts, that puked him several times; he threw up much indigested matter, but it had no cathartic operation. He was much relieved, however, by its emetic effect, and appeared afterwards nearly as well as usual; did his work and played about as he had been accustomed to do, until to-day; he has been away

three or four miles in a wagon, and on his return complained of its hurting him to ride, and generally of being unwell, with some sickness of stomach. I immediately gave him an emetic of ipecac. that has operated once freely, several times slightly. His stomach is still irritable, and ejects liquids when taken freely."

He was sitting in the parlor. Countenance rather dejected, skin cool, pulse 80, rather feeble, no pain, but slight uneasiness in the bowels; informed me he had had an evacuation per anum, every day but one since he ate the chestnuts. Prescribed two cathartic pills, liquid nourishment in small quantities, and if no operation during the night, ʒ i. Ol. Ric. in the morning.

Saturday morning, eight o'clock. Found my patient much as the evening previous, he had slept well, no pain, no fever, no puking, no operation from pills or oil, the latter he had just taken. Ordered pills, cal. and cociæ. every four hours, if the oil was ejected. Six o'clock, P. M. The oil had been retained, and two of the pills taken, but no effect, every way much as in the morning. Prescribed ʒ i. Ol. Ric. every four hours, until an operation.

Sunday, eight, A. M. Puked soon after I left him the night previous, before he had taken any more oil, and threw up the oil that was administered in the morning, apparently all of it. Gave ʒ i. more of oil, and four hours afterwards another ounce; he had been free from pain, slept easily, puked but once,

and that a short time previous to my arrival; they had preserved the ejected matter for my inspection. It was a greenish, watery liquid, with the oil apparently ʒ ii. swimming on the surface. Symptoms much as yesterday, pulse 90, rather more feeble, countenance sunken, no heat, no restlessness, no pain, abdomen gaunt, without the least tenderness on pressure upon any part of it. Administered saline injection, which came away unaccompanied by anything feculent. Subm. hyd. gr. iv. every four hours, strong decoction senna and manna between each dose of the mercurial, or the Rochelle powders, if the decoction should be rejected, with flannels dipped in hot spirit to abdomen. Five, P. M. The medicine not ejected, no operation; in other respects, as in the morning. ℞. Ol. Croton, gtti. Ten o'clock same evening, no effect, gt. iss. of the same, and injection; this soon came away, having a strong feculent smell, but little or nothing with it. Directed the cal. and senna tea to be given as before, if the croton oil was puked or had no downward operation.

Monday, seven o'clock, A. M. Puked within an hour after taking the gt. iss. of croton oil, the cal. and senna had been continued through the night, but no motion of the bowels. He had been more restless, slept but little, thrown up his drink several times, but complained of no pain. There was evidently an alteration for the worse, the countenance ghastly, the eyes sunken, the voice feeble and sepulchral, pulse 100, very feeble but regular, the intellect, as it had

been during his whole sickness, perfectly clear and lucid. Administered an injection, that came away unaltered; applied emp. cantharid. to the abdomen; discontinued all medicine, allowed him bottled cider and beef tea if he wished it, and advised a consultation. Three o'clock, P. M. Met Dr. Holbrook, of Milton, and the same evening Dr. Miller, of Franklin, both men of great experience and respectability. Found our patient quite as comfortable as in the morning; stomach less irritable, had taken the cider and beef tea with some relish, and had not vomited for the last seven hours.

It was agreed that the obstruction was probably irremovable, and its cause obscure, differing in symptoms from any case that had fallen under the observation of either of us; it was also agreed, as the stomach had become quiet, to make some further efforts to procure an evacuation from the bowels. We prescribed Ol. Croton. gttj. washed down with a decoction of senna and manna, every two hours, as long as the stomach would allow, and a saline injection with gt. ij. of croton oil in it, pro re nata, and if these failed to produce the desired effect, in the *dernier* resort, give ʒ ij. quicksilver. The medicine was given accordingly, and soon after the second dose of oil was taken, administered the injection; this irritated the rectum powerfully, and he made many efforts, but voided nothing in addition to the enema but a little bloody mucus. The croton oil was repeated three times and retained, the fourth re-

jected soon, and the fifth immediately; the stomach became very irritable, and threw up every thing he drank.

Tuesday, seven o'clock, A. M. Symptoms worse in every respect. Pulse more frequent and feeble, great restlessness, tossing from side to side incessantly, but complained of no fixed pain. Medicine discontinued. In the epigastric region the fluctuation of a considerable quantity of fluid was clearly perceptible to the touch and to the ear as he moved from side to side. He frequently ejected a greenish fluid, which invariably lessened for a short time his jactitation. Two o'clock, P. M. ʒ ij. Hydrar. was administered, no material change in symptoms till his death, which occurred at seven o'clock, same evening.

Post mortem examination. Thirty-six hours after death, the body was examined in presence of several physicians. On opening the abdomen, the first thing that attracted our attention was an enlarged stomach and duodenum. The stomach extended to the umbilicus, and contained a quantity of fluid. The duodenum was about three inches in diameter, and appeared *in situ naturali* like an extension of the stomach. This led us at once to the fatal obstruction, which was situated at the commencement of the jejunum, and caused by a factitious membrane or band. Three of the mesenteric glands at this place were much enlarged, though not schirrous. The membranous band appeared to originate from the mesentery of

the jejunum, about two inches in extent at its origin, and passing over this intestine, was inserted into the ascending colon, narrowed at its union with the colon to an inch and a half. It partially adhered to the jejunum at its upper extremity, at its lower we could pass a probe between it and the bowel, about half way, or under one half of the band. There was also an adhesion of the peritoneal coats of the jejunum and colon at this place. This band was drawn very tightly, compressing the bowel underneath so strongly, that its caliber was entirely obstructed. There was no appearance of recent inflammation or gangrene. The bowel underneath the membrane appeared contracted as well as flattened. The intestines below perfectly healthy, but contained no feculent matter through their whole extent from the stricture to the anus. The bowel immediately above, that is the whole of the duodenum, was much enlarged, as I have before observed, and contained a fluid that fluctuated to or from the stomach, as it was elevated or depressed.

Ligatures were now passed around the duodenum and œsophagus, and the stomach removed and opened. It contained about three pints of greenish fluid, similar to that ejected during life. Also the Hydrar. that was administered five hours before death; this was found in the stomach, but was probably thrown back by elevating the duodenum in passing the ligature for excision. The mucous membrane of both stomach and duodenum was more florid, and exhibited a

higher blush than natural; this was uniform over its whole surface, no one portion of a deeper cast than another; not exhibiting the true marks of inflammation, but of irritation or recent excitement; which probably the medicine aided the disease in producing. The pylorus was dilated to nearly the size of a cent.

A probe was passed through the duodenum into the jejunum, (compressed by the membrane) which was found pervious. The bowels were removed from the abdomen, and this portion of them separated for preservation. By relaxing this membrane, the finger can be passed into this portion of the bowel, its caliber is of its natural size, and the coats perfectly healthy.

Reflections.—Dissection has perfectly explained most of the symptoms that were previously so obscure. When this membranous band was formed it is difficult to say, as he had always been a healthy child, never having had a fit of sickness since his birth. It was evidently not of recent formation, perhaps congenital. What made it press more tightly now than heretofore? We are satisfied it must have been from the position of the intestines below the stricture; in their peristaltic action their position was so changed as to tighten this membrane, and thereby totally to obliterate the caliber of the subjacent bowel.

It is manifest that no internal medicine did or could remove this obstruction. The Hydr. by its

ponderosity was the best calculated to pass the stricture, and possibly give temporary relief, but even this failed. It is to surgery we must resort for relief, if relief is to be found in cases of this sort. Could we have known the nature and seat of this disease by its symptoms, I have a strong confidence that the scalpel, if skilfully applied, would have been successful; at least operations apparently more difficult and dangerous have succeeded. Let us then record faithfully and truly all the symptoms of these obscure cases, and if death ensue, accurately report the appearances the parts exhibit when carefully dissected, and the time may not be far distant, when we can call the surgeon to our assistance in these at present fatal obstructions of the bowels.

Dedham, November 29, 1830.

ARTICLE III.

CASE OF HYDROCEPHALUS.

BY JEREMIAH SPOFFORD, M.D.
Fellow of the Society.

Mrs. S. N. aged forty, and mother of four children, had been long afflicted with nervous headache, which had many times been so severe as to suspend her usual avocations. About two years previous to her decease, after severe exposure to cold and fatigue, all her symptoms were greatly aggravated, her sight became impaired, her pains constant, with much confusion of intellect, and want of memory.

This state continued without essential variation for more than a year, when an increase of all the symptoms became evident; she, in a great degree, lost the power of using the lower extremities; walked with difficulty, and without raising her feet from the floor; and a tendency to make her steps the contrary way from what she intended, became evident, and constant. About four months previous to her death, she lost her sight almost entirely, and was unable to walk unless she was led or sustained herself by her hands.

March 1, 1831. She is confined to her bed, has lost the power of moving her lower extremities entirely. Evacuations pass insensibly; sight gone; hearing good; memory greatly impaired; perception confused; less headache than formerly; generally answers correctly; and recognises her acquaintance by their voices; pulse 80.

April 1. Symptoms aggravated; makes no complaint; takes little food; head drawn back; bowels costive; pulse 100.

May 18. Head falling forward; face bloated; breathing apoplectic; swallows with difficulty; speech, and motion of every part gone, after which she continued merely to breathe till Monday, May 23d, when she expired.

Post mortem examination, thirty-six hours after death. On raising the cranium, the adhesion of that part to the dura mater were somewhat stronger than in the healthy state, and the vessels of the dura mater and the longitudinal sinus were filled with black blood. The adhesions of the dura mater and pia mater, were such that they could not be separated by any force which their texture would sustain. Adhesion had taken place at the external part of the falciform process, between the cerebral lobes, for about half an inch in depth, from which the process separated with ease down to the corpus callosum, which appeared much larger than usual, presenting on a separation of the lobes a protuberance of the size of a very large orange, a part of which only appearing

to view. On pressure, this body seemed to be distended with fluid, and on increasing the pressure, the finger plunged suddenly into a large cavity, from which burst more than half a pint of colorless fluid, having the appearance of pure water. This cavity was irregular within, the water enveloping the fornix, pineal gland, and filling the ventricles. At the anterior part of the fornix was observed a protuberance of the size and shape of an oil or butter-nut, nearly black, but with a tinge of green. On puncturing the fine membranous cyst, which covered this internal protuberance, matter of the color and consistence of tar was discharged, with, however, some of the greenish color of the envelope, and in quantity sufficient to form the whole contents of the tumour.

Whether this last mentioned sack of matter was a natural part, changed in appearance and substance, or wholly a morbid excrescence, I am not able to determine; and my only regret is that some more accurate anatomist had not had an opportunity to examine and report the case, which on the whole appeared to me rather out of the common course.

As to the treatment of this case, I consider it as having very little connexion with its progress or termination. I considered the case from the beginning, as in a great degree out of the reach of medicine. It was not, however, wholly abandoned. Aloetic purgatives gave some temporary relief. Calomel in doses to operate upon the bowels, was repeatedly adminis-

tered, and blisters to the arms and nape of the neck, gave some respite from the pain, in the earlier stages of the complaint; and a seton was inserted in the neck, but was deferred to a period too late to give much promise of relief, on account of the extreme reluctance of the patient to submit to the operation; it produced little or no discharge.

Whether any treatment whatever could suspend or modify the operation of a disease so deep seated, and in a part so remote from the ordinary circulation, is an important question. In any similar case now, I should be earnest to introduce the seton at an early stage of the complaint, and to give mercurials a full trial, having witnessed a recovery in a child of three years of age, who had suffered many weeks under aggravated symptoms of Hydrocephalus.

I examined, several years since, the head of a boy, a patient of Dr. Weld, of Haverhill, aged fourteen, where we found a similar collection of water, but much less in quantity; he died after an indisposition of three weeks, but without any alarming symptoms till twenty-four hours before his death: and about six weeks, another boy, aged nine, who had been under the care of Dr. Rodgers, of Rowley, whose ventricles were distended with water, and who had died after about two weeks indisposition with symptoms of disordered head and bowels.

How often similar cases occur to other practitioners, I have little knowledge; but this number of cases in this immediate vicinity, would lead to a belief, that

they must be numerous among the people at large, and that water in the brain of persons of some age, and even adults, is more common than is generally suspected, and that there is much variety in the symptoms which they produce.

Bradford, May 28, 1831.

ARTICLE IV.

REMARKS ON THE HISTORY AND TREATMENT OF DELIRIUM TREMENS.

BY JOHN WARE, M.D.
Fellow of the Society.

Some apology may be thought necessary for adding another to the many publications, which have been made on Delirium Tremens. I have none to offer except the belief that every subject in science, and more particularly every subject in a science of a nature so peculiar as that of medicine, requires not only careful and repeated observation, but the careful and repeated observation of many individuals, in order to its thorough illustration. This belief is confirmed by what is familiar to all in the history of medicine, that the whole truth on any of its most important subjects has only been arrived at by means of the successive contributions of many inquirers. The disease usually denominated Delirium Tremens, if not of late origin, has been but lately at least recognized and described as a distinct disease; and the numerous papers which appear relating to it in the

periodical journals, show it to be the general feeling, that the subject of its history and treatment has not yet been exhausted.

The value of any publication on a practical subject can only depend on the extent of the experience of the author, and on the degree of care with which his observations have been made. It is proper therefore to state, that the cases upon which the following remarks are founded, have been observed during the last fourteen years in private practice, and in the practice of the Almshouse in this city. They have amounted in the whole to between ninety and one hundred; of which seventy-seven occurred in private practice, and about twenty in the Almshouse. In these cases the peculiar symptoms of Delirium Tremens were clearly, if not always fully developed. I have, in addition to these, in common with all other practitioners, witnessed a large number of cases of disease in drunkards, which in some stage of their progress, indicated a greater or less tendency to pass into Delirium Tremens.

It is my object to state the results, with regard to the history and treatment of this disease, which have been derived from these cases, without any particular examination of the works or opinions of those who have already written.

It seems to be generally admitted among physicians, that cases of this disease are by no means always alike; that, though they may agree very well in those peculiar symptoms which are cha-

racteristic of it, yet they differ widely from one another, in some subordinate, or perhaps I ought rather to say, less obvious particulars. It has not, however, seemed to be the common opinion, that the consideration of this difference should lead to any corresponding difference in the mode of treatment. Indeed it has been the general belief, that the most prominent symptoms were those to which the principal regard was to be had in the administration of remedies, and consequently physicians have usually attempted the removal of the delirium and watchfulness, leaving such other affection as might accompany these, to the chance of relief, which the efforts of nature might afford, or at least deferring any attention to them, till what they regarded as the more important part of the case had been subdued.

The result of such observations as I have been able to make, has led to a conclusion somewhat different from this; to a belief, indeed, that the most peculiar and prominent symptoms in cases of this sort, are not those to the removal or alleviation of which, our efforts are to be chiefly directed. On the other hand, I believe we are mainly to be governed by a reference to such circumstances in the situation of the patient, in the character of his disease, or in the state of his constitution, as would require attention were he not affected with Delirium Tremens. Still it is not intended to deny that the presence of this affection, may and should frequently modify the principles on which we proceed in the treatment of such other difficulty as the patient may labor under.

There is hardly any state or degree of disease in drunkards, in which an attack of this disease may not be looked on, as a possible or even probable occurrence. Generally speaking, the more severe the original affection, the more likely is this secondary one to make its appearance; but this is not always true. It supervenes on a very slight indisposition in one individual, whilst another will pass through an attack of great severity, without exhibiting any indication of its approach. Neither does the degree of indulgence in the use of ardent spirits, afford any rule for measuring the probability of its occurrence. It often happens that the confirmed sot will escape its visitation for years, and perhaps for life; whilst a young man who has but just begun the habit of indulgence, may have an attack on the slightest indisposition.

Much of this difference depends no doubt on the constitution of different individuals. Some are much more susceptible to the immediate or intoxicating effects of alcoholic stimulants than others; and so, too, some seem to be more liable to suffer from their indirect operation, or that which produces disease. Still it does not appear that those who are in the first instance most sensibly affected by the stimulus of ardent spirits, are more likely to have disease produced as a consequence of their use, than others.

This difference depends partly also on the manner in which the habit of intemperance has been formed. Those who become intemperate early in life, and

give themselves up almost at once to unlimited indulgence, are commonly broken down within a few years, their constitutions fail them in early manhood, and among other bad consequences they are peculiarly liable to attacks of Delirium Tremens. Those, on the contrary, who have formed the habit gradually, who have used ardent spirits moderately in the first instance, and have come slowly to their excessive use, do not suffer nearly as much in health and constitution, do not sink so easily under the same degree of excess, and are less liable to be affected by the disease of which we are speaking.

It is a common belief, that Delirium Tremens is immediately occasioned by abstinence from ardent spirits, whether this abstinence be forced or voluntary. It is not intended to deny that abstinence may sometimes produce this effect; yet I feel very certain, that in a large proportion of cases, it has nothing to do with it. The symptoms of this affection frequently ensue shortly after a course of excessive indulgence. In this case it is not that the discontinuance of the indulgence occasions the disease; but that the access of the disease creates a distaste for liquor, and is the occasion of the discontinuance of its use. The disease occurs also in individuals, whose habit of drinking has never been suspended at all, but has continued up to the very commencement of the delirium. It happens, also, that a few glasses of spirit will be sufficient to induce a temporary attack of it in an individual

in whom it may be said to have existed in a chronic and intermitting form, or in whom at least there is so strong a predisposition to a delirium of this character, that very slight causes are sufficient to excite it.

In persons sick with acute diseases, who suffer in the course of them from Delirium Tremens, it makes its attack, not commonly on the access of the original complaint, but after it has continued some days, and frequently when it has apparently begun to subside. Hence its commencement will be, in most cases, at a considerable period after the use of liquor has been suspended; since in acute diseases the propensity for it is either lost, or so much diminished, as to lead the patient to relinquish it of his own accord, or to make him at least ready to do so when directed by a physician. It is common in such a case for the occurrence of the delirium to be attributed to the suspension of the accustomed stimulus, and from this circumstance perhaps the general belief has arisen.

Although Delirium Tremens occurs in various states of the constitution, and in various diseases, and is to be looked upon as a possible event in almost all cases of indisposition among drunkards, yet there is a remarkable similarity in the phenomena presented by the affection, and in the course of symptoms through which it passes, whatever may have been the original state of constitution or disease from which it has proceeded. Its approach is often indicated by the existence of certain symptoms from the

very commencement of indisposition. It is particularly likely to take place in those who have suffered from irritability of the stomach and frequent vomiting. Indeed, it often makes its appearance after having been preceded by no other symptom of disease, and comes on as soon as the vomiting ceases. There is commonly also in the beginning of those cases in which delirium finally ensues, a tremor of the hands and limbs, and more frequently of the tongue; a tremulousness of voice producing some indistinctness of articulation; a general anxiety; a hurried manner of moving and speaking; imperfect and disturbed sleep; and startings and twitchings of the limbs. These signs are by no means infallible. They are sometimes observed where delirium does not follow. But where they exist from the very first, are not diminished by the treatment adopted, and do not leave the patient with the other symptoms of his complaint, an attack of Delirium Tremens may be reasonably expected.

But on the other hand, it frequently happens that the attack is not indicated by any such symptoms in the early history of the case. The patient appears to be getting on perfectly well, and the original disease to be subsiding in a satisfactory manner, when suddenly it becomes manifest that an attack of Delirium Tremens is threatened. In either case, however, whether there have been any premonitory symptoms or not, the disease follows very much the same course. The patient first complains that

he has not slept well, that he has been disturbed all night by unpleasant dreams, that he has been hard at work, but that matters have not gone right, that his concerns have troubled and perplexed him. During the next day, perhaps, he is tolerably comfortable, has some appetite, moves about his house or place of business; yet he is uneasy and restless, and exhibits those appearances which have been already described as indicating the approach of the disease. This continues for one or two days; each night being worse than the preceding, whilst in the day there is an increase of the anxiety, restlessness and trembling of the limbs, tongue, and voice.

The night is then passed with only one or two short naps, from which the patient awakes with some strong impression upon his mind, of the fallacy of which it is difficult or impossible to convince him. His sleep has been filled with dreams of dangers and perplexities and annoyances, innumerable and indescribable. From this state he passes into that of complete watchfulness and delirium. The dreams of his sleeping become the fancies of his waking hours; and in his delirium he conceives himself to be engaged in the same occupations, beset by the same difficulties, and surrounded by the same dangers, that he has described as giving a character to his dreams. In fact it is difficult in many cases to point out the precise time at which the mind passes from the dominion of the conceptions which have been engendered in sleep, to that of those which are the offspring purely of the disease.

At whatever period this state of entire watchfulness and delirium begins, we are to date from it the commencement of what may be denominated *a Paroxysm of Delirium Tremens.** Yet it will sometimes happen, that, on the morning succeeding the night, from the last continued sleep of which, we are to date the commencement of the paroxysm, the patient does not exhibit any unequivocal marks of the delirium by which he is affected. The attendants inform us that he has had but little sleep, and has been very crazy, but we find him sufficiently rational to give an account of his feelings, and fully aware of whatever is going on about him. Still his aspect and manner are such as to convey to the mind of one accustomed to the disease, the true state of the case, even although there may be no actual exhibition of delirium during the period of the visit.

Most frequently, however, at this time there are occasional wanderings of mind, though not a continued state of delirium. Thus, while sitting by the patient, we perceive his eye become intently fixed upon some remote spot in the room, or without a window, as if it had been suddenly caught by some remarkable object ;—or he will speak in a loud and

* Some objection may probably be thought to lie against this use of the term *paroxysm*, in which it is made to include a course of symptoms extending through several days. I do not know of any other which would express the intended meaning better. By a paroxysm of Delirium Tremens, I mean to include that period of a disease of drunkards, which is characterized chiefly by delirium of a peculiar kind, and (with rare exceptions) by entire watchfulness, which continues for a certain period, generally not less than sixty or more than seventy-two hours, and terminates either in a critical sleep or in death.

quick voice, as if making answer to some one who has addressed him from without, or from behind; or he will start up hastily from his seat or from the bed, and run to another part of the room, or to look beneath the bed, as if in pursuit of something. These impressions are, during the early part of the day, evanescent; but in the latter part the delirium returns, and becomes constant. It increases in violence till about the middle of the night, and then diminishes towards the morning.

On the morning of the second day the delirium is still complete; it is not altered in its character, but the patient is milder and more tractable than during the night. He is as fully possessed of the strange imaginations which have entered into his mind; but he is more easily influenced by his friends, and is more amenable to authority. The second night is generally worse than the first, and there is less abatement of the disease in the ensuing or third morning, and in the early part of the next day; still there is some alleviation of symptoms, like that of the day before. The third day is passed much in the same way as the second; but if the disease is to have a favorable termination, the delirium of the third night is less violent than that of the preceding, and the paroxysm terminates in sleep, sometimes in the course of the evening or first part of the night, but most commonly not until the latter part of the night or in the morning. When the disease is about to terminate unfavorably, the delirium continues undiminished until the fatal event takes place.

This description has been taken from cases which were left to take their own course, uninfluenced by medicine. In all essential points it will apply to a majority of cases. Still there are many variations in the time of day at which the paroxysm begins and terminates, in its length, and in other particulars, which cannot be included under any general account. Thus its duration is sometimes less and sometimes greater than that assigned to it. Especially it is apt to be prolonged in those who have had repeated attacks, and in one such case I have known it to extend to nearly six entire days.

During the first part of his sleep the patient is generally uneasy and restless, his breathing is irregular, and is sometimes almost like that of a person dying. During the first few hours, he often wakes once or twice, perhaps gets up and renews the exercises of his delirious state, or else takes merely a little drink, but in either case, goes soon to sleep again.

Soon after getting into a sound sleep, the breathing becomes deep, slow, and sonorous; a profuse sweat breaks out, and for a long time the whole body is bathed with it. After six or eight hours the patient awakes tolerably rational, and sensible of what is going on about him, but generally with some impression left on his mind of the imaginary scenes through which he has passed. He continues, for the next twenty-four or even forty-eight hours, to sleep during the greater part of the time. At the end of that period, his restoration appears complete, so far as

the peculiar symptoms of Delirium Tremens are concerned; for he may still be the subject of other affections which have preceded the paroxysm, and which remain after it has subsided.

Almost invariably the occurrence of sleep at the close of the paroxysm is indicative of a favorable termination. In some rare cases, however, the patient actually dies after falling asleep, particularly where sleep has been procured by opium; indeed the only cases which I have seen or known, in which the disease has terminated in this way, have been treated by large doses of opium. In such a case no peculiar symptoms indicate a different result from that which we usually promise ourselves when the patient falls asleep, till after sleep has taken place. But then, instead of gradually passing from a disturbed into a more tranquil and natural slumber, he becomes first more unquiet and restless, moans, breathes with difficulty, and falls at length into a state of complete coma, from which he never awakes.

The disease terminates fatally in several other ways. Sometimes the patient is carried off by the sudden accession of convulsions, and this event is particularly to be looked for in those cases which have begun with them. They also occur very unexpectedly in cases which promise favorably, and which have afforded no ground for anticipating them. Sometimes the patient, after continuing the violent exertions of his delirium to the very last moment, without any of the peculiar signs of approaching dis-

solution, falls back and expires immediately. Sometimes, during the continuance of the delirium, death comes on from the effects of some disease with which it happens to be complicated, and dissolution occurs in the same way that it would from that disease alone.

This is the general course of the phenomena which are exhibited during a paroxysm of Delirium Tremens. A more particular account of the individual symptoms will be given hereafter. As has been already intimated, they occur under circumstances very various, and in connexion with states of the system and of disease very different from each other. They are accompanied in these different cases with different degrees of danger, and require considerable modifications of treatment. Still there is a remarkable similarity in the general course of the paroxysm, and in the conduct and aspect of the patient, between cases the most slight and the most dangerous; between those which arise in a healthy individual, simply from his usual habit of indulgence in intemperance, and those which take place in the course of the most grave and unmanageable diseases. Indeed from seeing the patient only whilst under the influence of the paroxysm, it would be impossible to determine with anything like certainty, what his original disease really was; and whether the symptoms which he exhibited were primary, or whether they had arisen secondarily in the course of some other disease.

It is, however, very important, before making up an opinion concerning the probable course and event, or proper treatment of any case, to determine the nature of the original affection; to ascertain the precise amount and extent of disease, with which we have to contend. I shall proceed therefore to describe, as far as my observation furnishes me with materials, the several circumstances, states of the system and of disease, in connexion with which the symptoms of Delirium Tremens make their appearance.

I. Delirium Tremens occurs as the immediate consequence of a particular excess, or of a succession of excesses, in individuals not otherwise disposed to disease. The kind of excess referred to, is not simply that habitual use to which all the subjects of this disease have been accustomed; though this is, under certain circumstances, sufficient to its production; but a degree of it for a short period somewhat beyond their common habit. It occurs most frequently in such persons as have from any cause been induced or obliged to abstain from the use of ardent spirits for a considerable time, and have again had free access to them. Hence it is often seen in sailors after a long voyage, or in those who have been permitted to go on shore from a vessel of war for a few days. But it may also occur in any intemperate person, who, without having previously intermitted the use of spirits, has been tempted to a course of unusual indulgence for several days in succession. Thus it is very common in those who are taken up in a state of intoxica-

tion by the civil authority, and committed to almshouses or houses of correction for actual drunkenness. This form of the disease is usually denominated by the vulgar, 'the Horrors;' but the same name is frequently given to the other more severe and aggravated cases.

A considerable number of cases of this description fell under my observation at the Boston Almshouse, when that place was made the receptacle of persons taken up in a state of intoxication. The usual symptoms of delirium manifested themselves in a period varying from a few hours to one or two days from the time of entrance. They were not less severe, not less distinctly marked than those which occur in the more important cases; but the paroxysm did not uniformly continue for so great a length of time. It sometimes subsided spontaneously in twenty-four hours, though more frequently running out to the full length which has been spoken of as common to the disease generally.

The patient is left in his usual state of health, and so far as I have ever known, the termination is always favorable. I do not believe that the course of the disease is made shorter, or a fortunate issue more certain by any mode of treatment whatever. Indeed the employment of many active remedies, particularly of opium, has rather a tendency to aggravate the symptoms than to diminish them.

The occurrence of cases of this class in large numbers in the practice of particular physicians, has given

occasion to the expression of the opinion that Delirium Tremens is capable of being almost uniformly treated with success, and that too by very opposite remedies; sometimes by very powerful, sometimes by very simple modes of treatment. Now were all the cases of this class treated by opium, they would probably all recover, and if they were not carefully distinguished from cases of a different description, they would confirm in the mind of the practitioner the belief that Delirium Tremens was always readily cured by opium. The same inference might be drawn with regard to any other remedy, which should be made use of in any considerable number of cases. But no inference could be more unfounded. The disease subsides of itself, unaided by art. On this account, statements of the degree of mortality of the disease, as it occurs in public institutions, and of the efficacy of particular remedies in its removal, are to be received with caution.

II. Delirium Tremens occurs, secondly, as the consequence of habitual intemperance, without being occasioned by any particular or extraordinary excess, and in this case, it approaches more nearly than in any other to the character of an idiopathic disease. It might indeed be questioned, whether there be sufficient ground for making any distinction between this form of the complaint and the preceding; whether the difference is not merely a difference of severity, in cases essentially the same in nature and character. Probably the state of the brain and ner-

vous system upon which the prominent and characteristic symptoms of the paroxysm depend, is essentially the same in all cases. But there is a wide difference in the state of the system at large, and in the symptoms by which it is preceded and followed, and sometimes accompanied; and also in the danger which attends it. This consideration is a satisfactory reason for the arrangement here adopted.

Cases of this kind not only occur without particular acts of excess, but are not unfrequently preceded by an abstinence for several days; the approach of disease sometimes rendering the patient indisposed to his usual indulgence, and sometimes leading him to fear that it may increase the severity and danger of his complaint. The attack does not always take place in precisely the same way, and yet the general course which the symptoms follow is not strikingly different. Sometimes the digestive organs are first affected in a manner very common in the intemperate; sometimes the approach of the disease is like that of a febrile affection; and sometimes the head is primarily affected. More frequently there is a combination of the symptoms arising from these various sources. The patient has chills, followed by heat and sweating. The skin afterward continues in a moist state, and is usually cool, particularly on the extremities. Various sensations are complained of in the head, viz. headache, commonly slight, sometimes very severe; dizziness; and a feeling of confusion and uneasiness when there is no pain, the patient

allowing that his head does not feel exactly as in health, although he cannot describe the sensations from which he suffers. The sleep is imperfect, irregular, and unquiet. The tongue is slightly furred, or red and smooth; the appetite usually, but not always impaired. Vomiting frequently occurs. The pulse are usually frequent and wanting in force; sometimes strong, hard, and slow. The eyes are suffused, and the tarsi inflamed. Convulsions are occasionally present; and there is commonly a tremulous affection of the muscular system, which exhibits itself in the motions of the eyes, hands, tongue, and diaphragm. There is often quite early a little wildness in the expression of the eyes and face; and the mind, though not properly unsettled, is a little removed from its usual state.

None of these symptoms are uniformly present; but the simultaneous existence of a considerable number of them indicates pretty certainly that the patient will finally suffer from Delirium Tremens. The same symptoms are present, and may lead us to expect a like result in those cases which constitute the third class.

III. But in these they occur not by themselves, but in connexion with other regularly formed and well marked diseases, or else as the consequence of injuries. In such cases, the paroxysm, when it makes its appearance, is, with some exceptions, as distinct in its character and regular in its course, as in those just described; but there are several circumstances con-

nected with the time and mode of its attack, which require particular notice.

The delirium often comes on when the patient is convalescent from the primary disease. In cholera or diarrhœa it may supervene when the vomiting and evacuations from the bowels have ceased, and the weight of the attack seems to have subsided. In inflammations of the lungs or pleura, after the violence of the symptoms has abated, after the cough and difficulty of breathing have been relieved, and the pulse have returned to the natural standard, we often perceive very unexpectedly the approach of those symptoms which indicate an attack of Delirium Tremens.

The delirium may also come on when the patient is only apparently convalescent; and it is to be remarked, that in whatever state of the system or of disease an individual is attacked with Delirium Tremens, any other morbid affection which pre-exists, is absorbed or at least obscured by it. Thus the apparent convalescence may arise from the obscurity which is thrown over the original symptoms by the approach of those which precede the new complaint. We may erroneously conclude that the patient ceases to suffer, because he ceases to complain; and that the ravages of disease have been checked, because their external indications can be no longer observed. We may learn that this is so from instances in which the primary disorder is again exhibited after the cessation of the paroxysm of Delirium Tremens; or in which death takes place during the paroxysm, and dissection shows that it had never ceased to exist.

In other cases there is neither any actual nor apparent improvement before the new attack, the delirium making its appearance at the very height of the original disease. But here also the primary symptoms may be finally absorbed or obscured, so that nothing is afterward apparent sufficient to distinguish it from uncombined Delirium Tremens, even to a careful observer, who should witness the case in its advanced period only.

There are, however, some cases in which the symptoms of the original disorder continue to be perceptible through the more prominent ones of the paroxysm. The cough, pain, and difficulty of breathing may be such as to indicate satisfactorily the existence of inflammation of the lungs. In cholera, and more particularly in diarrhœa and dysentery, the continuance of the evacuations after the access of the delirium, may bear witness to the continued presence of these diseases, although the pain and exhaustion which they occasion should be obscured by the imaginary sensations and preternatural strength which are the consequences of the new attack.

It is probable that a total change may sometimes take place in the character of the disease under which the system labors, and that the first disease may be actually cured by the attack of the second, an event which is certainly known to happen in other cases. It is not unlikely also, that a severe acute disease may be attended from its very first approach with symptoms of Delirium Tremens, which might thus

veil entirely its character, and conceal its dangers. I am not aware that either of these last named varieties has been known to occur, but as they are equally probable in themselves as the forms of complication which have been already described, it seems proper to suggest them as cases for the occurrence of which we are to be prepared.

IV. So far, we have referred chiefly to those cases in which Delirium Tremens assumes the form of a regular paroxysm, terminating in sleep. In acute diseases, this is the usual course, but sometimes in the acute diseases, and frequently in the chronic diseases of drunkards, a delirium comes on resembling that of which we have been speaking, in everything, except that it does not go through the same regular course, or come to a similar termination. Thus in a case of very severe pleurisy, for two nights in succession, at the height of the disease, the patient was delirious, and resembled so exactly in his appearance, manner, and disordered imaginations, those which are exhibited in Delirium Tremens, that no one, not acquainted with the whole history of the case, would have suspected that it was anything but a regular case of that disease. The course of the pleuritic affection was not at all modified; the patient was nearly rational through the corresponding days; the delirium subsided rather gradually; he slept occasionally while it continued, and finally recovered, without a proper paroxysm.

In another case of thoracic disease, viz. of inflam-

mation of the lungs, a delirium of the same character came on towards the close of the case, which terminated fatally, continuing for about twenty-four hours, and ending only at death; death taking place as it would have done from the pulmonic affection. I have witnessed other cases of a similar character in which the delirium resembled that of the regular paroxysm with great exactness, but in which the course that it took, and the mode of its termination were different.

In chronic diseases delirium may affect the patient in a similar manner; sometimes occurring every night for a succession of nights, and sometimes only a single night at once; and so returning occasionally for a considerable time. In these cases, it would seem to take the place of that delirium which might attend the same diseases in patients not intemperate.

There are also states of disease among drunkards of an anomalous character, affecting at once the mind and body, and approaching very nearly in their aspect, at particular times, to Delirium Tremens. Still they are to be distinguished by the want of regularity in their whole course, by their not constituting a proper paroxysm, and by their having no definite termination in sleep.

Having thus described the general course of this affection, the circumstances under which it originates, and the states of the system and of disease with which it is connected, it may be useful to give a more particular history of its principal symptoms;

our previous object having chiefly been to describe their connexion together as constituting the paroxysm. The most remarkable and constant symptoms are the delirium, watchfulness, and tremor.

Of these the delirium is the most universally and constantly present. It is perfectly peculiar in its character, and so slightly resembles that which is exhibited under any other circumstances, that if witnessed but for a few moments, one may feel sure with regard to its nature and origin. Its general character is the same throughout the whole of the paroxysm, but the subjects in regard to which it is exercised, are as various as the occupations, habits, modes of life, associations and relations of the individual attacked.

His imaginary perceptions are generally removed entirely from the actual state of things about him. They often relate to his particular occupation or business, or to whatever other subject may happen at the time to weigh most heavily on his mind. Almost always he imagines himself to be in a different place from that in which he is, and under some disagreeable circumstances. The seaman thinks himself at sea in a gale of wind, vainly endeavoring to bring his vessel to a safe and proper bearing; the smith at his anvil, laboring ineffectually over a piece of work which he can never finish; the cooper toiling in vain over hoops and staves, which he cannot match; and the rope-maker, twisting forever an interminable length of yarn. All are engaged in a

Sysiphian labor, which they are doomed never to accomplish.

But although the predominating idea for the time, has full possession of the mind, and everything is made to conform to it, yet it is frequently changed in the course of the disease, and has sometimes no relation whatever to any of the habits of the patient, or to any circumstances or things with which he is connected. Thus a patient who had been dissolving a co-partnership before his sickness, was in the first place constantly busied in an entangling controversy about the settlement with his partner; then he suddenly conceived himself to be chased by an alligator, who had been concealed in the chimney of his room; then he would seize upon his bed, and shake it upon the floor, in search of rats and mice, which he supposed to be concealed there, or busy himself in picking lice from his clothes, fleas from his pillow, or hairs out of his drink.

There is in the aspect and conduct of those affected by this delirium, a very peculiar and strong impression of reality. This is sometimes exhibited in a manner sufficiently ludicrous, as in the case of a cooper, who insisted that his mother, a woman of a round and plump figure, was a hogshead, which he was to hoop. At other times, the spectacle is painful. Nothing can be more real than the expression of horror, fear, or despair, which are occasionally witnessed in the unfortunate subjects of this disease. The dread of robbery and of murder are as distinctly

produced in their minds, as they can be in those of persons actually subjected to these dangers. There is often a thrilling and almost startling truth in their expressions of voice and countenance; and from the entire absence of any of the proper exciting causes of such emotions, the whole scene appears to the by-stander like excellent acting.

The presence of a stranger, and more particularly of the medical attendant, is almost always sufficient to calm, for a short time, the most violent of these patients, and even to suspend the current of their imaginations. It is only, however, for a short time; for if the visit of the physician, even, be prolonged to any considerable length, his authority is lost, and the delirium returns in its full violence. I once sat beside a patient for an hour or two in the beginning of the evening, when the paroxysm was coming on, with the hope of being able to keep up that kind of influence, which I found was at first exerted over him. He was a person of character and education. For some time, by speaking decidedly to him, when attempting to rise from his bed, at the same time lifting up my finger as if to indicate the importance of silence and quietness, I succeeded in inducing him to throw himself back and remain still, though looking wildly around, and talking incoherently of things which he supposed to be going on about him. Suddenly he started up, escaped from the opposite side of the bed, and immediately attempted to jump from a window that was near. After his recovery he for

some time believed that I had sat by him with a pistol in my hand, which I pointed at him whenever he attempted to get up or to escape. The impression thus produced on his mind was very disagreeable, and was not obliterated for a considerable time.

Patients laboring under Delirium Tremens are not disposed to commit violence or do mischief intentionally; and although it is very common for them to tear their clothes and break furniture in pieces, yet it is generally with the intention of bringing about some important purpose, which they imagine they can thus accomplish. There is nothing morose or sullen in the temper they display. Indeed they are usually timid, irresolute, and easily alarmed. The apprehension of some design upon them, is often the predominating feeling in their minds, and they as frequently imagine that they have already suffered some severe injury. They are in fear of sheriffs, of robbers, of being murdered, &c. They commonly believe that they have been carried away, and are forcibly detained from home. They often start at any loud and sudden noise, thinking that a musket has been fired at them. One patient declared that he had been flayed, and as a proof pointed to the bare flesh of his arm, from which, as he said, the skin had been taken; another asserted that he had been taken to pieces and put together again. In the state of extreme terror to which these various apprehensions reduce them, it is not uncommon for them to attempt jumping from windows, and this they sometimes accomplish.

I know of but one individual who has committed any violence on himself. He did this in two several attacks. In the first, he had suffered very severely from pain in the head, was much dejected, and impressed with some undefined expectation of evil. He mangled his throat with a penknife, bled profusely, but was prevented from farther mischief, and his paroxysm went through its usual course. In the second attack, he made a similar attempt with a razor, wounded some small arteries, and cut badly into the larynx. He bled to faintness, and was much reduced by the hemorrhage, but his disorder was not affected by the loss of blood, and he finally recovered.

There is hardly anything in disease more remarkable than the spectacle exhibited by a patient in the height of a paroxysm of Delirium Tremens. We see him intently engaged in the pursuit of some imaginary object, laboring with the utmost diligence and earnestness upon imaginary materials, and with imaginary companions; his countenance haggard and worn by anxiety and watchfulness, and his hair, face and limbs bathed in a profuse sweat. At one time we find him supporting with his whole strength the wall of the house, believing that it is about to fall in and crush him; at another time, he is engaged in a combat with snakes, alligators, rats, mice, or insects, of which his room, his bed, and his clothes are full; at another, his flesh is filled with pins, needles, fish-hooks, or pieces of glass, of which he is endeavoring to get free, cutting himself even to the quick in

the attempt; at another, he is in an agony of terror, trembling in every limb at the fear of murder or fire, and beseeching in the most piteous accents for assistance; again, perhaps, we may visit him when he is tranquil and comparatively calm, and ready to entertain us with a long and solemn narrative of the dangers and adventures of the night before.

But strong as must be the impressions upon the mind, which are thus exhibited, they are very evanescent, and with few exceptions, continue for but a short time after recovery. It seems to the recollection of the patient as if the imaginations of his diseased state were the occurrences of a troubled dream. There is the same kind of mistiness and uncertainty about the former that there is about the latter. In short, the state of the mind in Delirium Tremens very closely resembles that which exists in dreaming, whilst the state of the body differs. Not only is the imagination of the patient filled with the objects which form the subjects of his delirium, but the perceptive powers partake in the same unnatural state. With his senses open to external impressions, he sees, hears, and speaks to and of, persons and things, which in his sleep he sees, hears, and speaks to only in imagination. There is in each case the same want of the corrective power of the judgment. The mind follows on passively in the train of its associations, without any attempt to correct their incongruity.

In corroboration of this view, it may be remarked,

that the delirium often seems to be merely a waking continuation of that state of mind, which has existed during sleep for several preceding days. Before the paroxysm begins, the patient describes to you his dreams as being of precisely the same character that his waking imaginations afterwards are, when the disease has become established. In fact, it is occasionally difficult about the time of the access of the paroxysm, to determine whether he has slept or not, so blended are the states of mind in sleeping and waking, and so insensibly does he pass from the disturbed sleep which precedes the disease, to the disease itself.

The correcting power of the judgment is not always entirely lost in sleep. We are sometimes able to reason concerning the probability of our fancies. This happens occasionally in Delirium Tremens. A person of very strong mind may sometimes detect the fallacy of his imaginations, and obtain a partial control over them. This lasts but for a moment. I once succeeded in convincing a patient who thought himself away from home in a strange place, that he really was in his own house, by directing his attention strongly to several pictures, which were hanging around his room, and to the peculiarities in its arrangement, furniture, &c. He was convinced for the moment, that he *was* at home, but not that he *had been* at home. He wondered how he had got back so quick. He soon relapsed into his original state.

We often find that events happening about us which

strongly appeal to the senses, become parts of our actual dreams, by means of certain quick operations of our minds by which they are suddenly incorporated with them. Thus, the shutting of a door, the speaking of a few words, the striking of a bell, whilst we are asleep, often become part of our dreams. It is so in Delirium Tremens. Things actually happening, enter into and become part of the waking reverie, after being magnified or exalted by the excited imagination. The shutting of a door is taken for the report of muskets, the *singing* of wood on the fire, for the music of a band, &c. &c.

There is a resemblance also between the state of mind in Delirium Tremens, and that which exists in the affection which has been denominated ecstasis or ecstasy, of which examples are not unfrequent. The resemblance, however, extends no farther than to the general laws, according to which the mind is affected. In other respects there is none.

Next to the delirium, the watchfulness is the most remarkable symptom. So characteristic is it, that it has been proposed as affording a better distinguishing appellation of the disease than the tremor; and it is unquestionably true, that the tremor is more frequently absent than the watchfulness, and that Delirium Vigilans* is a more expressive name than De-

* Dr. Hayward, of Boston, in the New England Medical Journal, Vol. XI. for 1822, advocates the substitution of this name for that now in use, by arguments for its adoption, which would be unanswerable were the disease to be now named for the first time.

lirium Tremens. Uniformity is, however, so much more important than significance of nomenclature, that it seems not desirable to attempt to substitute a new name for that now in general use.

The termination of a paroxysm of Delirium Tremens is always, as has been already mentioned, by a profound sleep, and no cessation of the delirium or other symptoms is to be regarded as indicating a favorable close of the disease, unless it have been preceded by it. Sleep, however, is not always to be regarded as indicating the speedy termination of the paroxysm, since it is not uncommon for patients to sleep a little,—from a few minutes to an hour, for instance,—on each day of the delirium; and this is more likely to happen when the attack takes place in the course of some other disease. Lucid intervals are not common, but they sometimes occur, and so far as a few cases can go towards establishing a general principle, we are to regard them, when occurring before the regular termination of paroxysm, as unfavorable indications. Two cases only, however, of this kind have fallen under my observation, and I do not recollect that any others have been recorded.

In the first, the disease began with convulsions, which were repeated during the first twelve hours. On the second morning, without having slept at all, the patient had a perfectly rational interval of considerable duration, and talked with his friends and attendants in a manner which would have led no one to suspect him of having labored under any alienation

of mind. In a few hours, however, the delirium returned, and he died in about forty-eight hours from the first attack of convulsions.

In the second case, the disease, though finally assuming all the peculiar symptoms of Delirium Tremens, and occurring in a person who had once suffered from it, did not exhibit itself in an unmixed form. His symptoms were at first irregular, and arose, as I conjectured, from a combination with inflammation of the brain, but they assumed finally the aspect of genuine Delirium Tremens. After one or two days of delirium, and a night passed without sleep, he became, for nearly a whole day, perfectly rational. This relief followed venesection and the free operation of cathartic medicines, but was not preceded by sleep, and was not relied on as affording a favorable prognosis. The symptoms accordingly returned with increased violence, and with a more close resemblance to Delirium Tremens. Sleep was procured by laudanum, but without any relief of the other symptoms, and the case terminated fatally.

The tremor which has given its name to this disease, is nearly as universal a symptom as the watchfulness; but though present during some part of almost every case, is not uniformly present throughout its whole course. It is occasionally very violent, and reminds one of the shaking of the limbs in an attack of intermittent; but it sometimes amounts merely to a slight tremulousness. It extends to most of the voluntary muscles, affecting the tongue, the

lips, the eyes, the limbs, and the muscles of respiration; the affection of the latter being indicated by the tremulousness of the voice, and of the sound produced by the air in inspiration.

We may make this additional distinction between the watchfulness and tremor, as serving to characterize the disease, that the former occurs only in this affection, whilst the latter makes its appearance in all cases of sickness among drunkards, and is even common in many who are in their usual health. No doubt the existence of the tremor in a case of sickness should lead us to suspect the approach of Delirium Tremens, but it affords no certain indication.

Beside these, which are the most characteristic symptoms, others occur of more or less importance.

Convulsions are not unfrequent. They are often the first symptom which excites notice; they are sometimes the immediate precursors of death at the close of the paroxysm; and they occasionally take place in its course, and sometimes bring it prematurely to a fatal termination. They are always an unfavorable, but by no means a fatal symptom, though they perhaps appear in a majority of cases which end in death. We may reasonably regard them, when they begin the disease, as implying some primary affection of the brain. In a few cases, which I have had an opportunity of examining after death, where convulsions had preceded, effusion has been found to have taken place both on the external surface of the brain and within the ventricles.

Patients are seldom without some unnatural sensation in the head. This, in many cases, amounts to a severe headache; and may be the first symptom of which complaint is made. Sometimes it is only a dizziness, heaviness, or sense of confusion. If the patient, even in the height of the delirium, be asked how he is, he perhaps answers abruptly, that he is "pretty well," "quite smart;" but that he "feels badly about the head;" and he seldom fails to acknowledge some feeling of this kind, at whatever period of the case inquiry is made.

In one instance the patient complained that surrounding objects appeared to him to move to and fro; but he was aware that this arose from a morbid affection of the sense of vision, and did not confound it with the delirious ideas which occupied his mind.

The pulse varies much in frequency in different cases, and at different periods of the same case. At first it is often of the natural standard, becoming rapid as the case proceeds. Sometimes it is frequent from the first. Almost always in the height of the paroxysm it becomes very rapid, rising to 130, 140, or even 150. Still in a few cases it continues at the natural standard, or a little above it, to the termination of the disease in sleep; and such cases rarely do otherwise than well. If the pulse do not rise above 100, we may regard the case as almost certain to do well, and the danger increases as the pulse rises. Still even a quick pulse is not a very fatal symptom, since persons often recover whose pulse has risen to 130

and 140; and a slow pulse is not unequivocally favorable, for I have known a patient carried off very suddenly by convulsions, whose pulse had not exceeded 90. When the pulse, after having been very quick and small, becomes slower and fuller, particularly when this happens toward the close of the paroxysm, we may predict a favorable event with considerable confidence. This change in the pulse often precedes, by a few hours, the termination of the disease in sleep. When, on the contrary, at the proper time for the conclusion of the paroxysm the pulse becomes quicker, smaller and weaker, there is reason to fear an unfavorable event, though the indication in this case is less certain than in the former.

There is nothing peculiar in the state of the tongue. It is commonly preternaturally clean, red, and tremulous; but this appearance is common in the diseases of drunkards. It is sometimes covered with a thin white fur; more rarely with a thick. It is very seldom dry, except after great and exhausting muscular exertion. Sometimes it is protruded, and kept so, with difficulty; and often at the beginning of the disease, the patient, when asked to show his tongue, thrusts it out very suddenly, with some distortion of the countenance, and a staring expression of the eyes. In general, we may regard the tongue as rather indicating the general state of the system, than the state of the disease itself.

The appetite usually fails, partially at least; in some cases it has remained good, and the patient has

been allowed to take his regular meals. It has always appeared to be a favorable symptom.

Thirst is seldom excessive; less so than in most diseases accompanied with excitement. In that form of it which follows immediately from excess in ardent spirits, the desire for them may remain, and sometimes in cases of a different description. But often there is no such indication.

The skin is generally soft and moist from the first, but toward the close of the disease, it is bathed in a very profuse sweat. This may be partly attributed to the muscular exertions of the patient, but not entirely, since it continues after he has fallen asleep. Toward the close of the paroxysm, the hands and feet, and often the whole body become cold, though still covered with sweat, and this more particularly in those cases which have a fatal issue.

The countenance in the early stages of Delirium Tremens, has merely a wild and unsettled look; in the advanced periods, particularly in bad cases, it is anxious and troubled, and during the last few hours before the close of the paroxysm, becomes strikingly haggard and ghastly.

In forming an opinion with regard to the probable event of any case of this disease, we are to be governed by a variety of considerations, the most important of which may be gathered from the preceding remarks. In patients of the first class, or those in which the attack arises immediately from excess, the danger may be regarded as almost nothing. In

cases of the second class, the danger is undoubtedly greater, but is still very small, unless there have been several previous attacks. In those of the third class, the danger is always considerable, but the degree of it will depend chiefly on the nature and severity of the original disease. Where the local affection is slight, such as an inconsiderable external injury, or a common catarrh, the risk of death is but little greater than in an uncombined attack; but where it is severe, as in inflammation of the lungs, in dysentery, or in compound fracture, the patient is in great peril. The danger is greater when the delirium comes on at the height of an acute case, than when it occurs after an alleviation or remission of the symptoms. Indeed the most frequently fatal cases are those already referred to, where the disease does not go through the regular course, but simply takes the place of the delirium which comes on at the height of many acute cases, and precedes death but for a short period.

We can seldom be justified in giving an unqualified opinion of the event of a case of Delirium Tremens, either in favor of or against the recovery of the patient. It is often a matter of much delicacy, so to state the possibilities of the case, as not, on the one hand, to lead the friends to too sanguine an expectation of recovery, or on the other to too unfavorable a view of the result. Degraded as the habits are which lead to this disease, and lost to all that is honorable or desirable in life, as most of the subjects of

it are, still some are not so, and many, even of those who are, are objects of affectionate solicitude to parents and friends. Every physician must meet with many cases where the feelings of those around the patient demand the utmost consideration and sympathy, even if his own character claim no respect. It is not uncommon for this disease to occur in young men who are objects of interest to highly respectable families; in husbands who have wives and children dependent on them; and even in wives and mothers themselves. Some of the most painful scenes we can witness, are connected with instances of this kind, not only on account of the patients themselves, but of those also, who are connected with them and are interested in their recovery. Indeed there is hardly any disease, for the recovery of friends from which there is more anxiety manifested than there sometimes is in this; from the hope, so generally a fallacious one, that the sufferings of sickness and the danger of death may serve to reclaim the patient from the course which has subjected him to them.

On account of the friends, therefore, it is necessary to be careful in the opinion given of the probable event; for there is hardly any case, even those which present the most favorable appearances, which may not terminate fatally, and that very suddenly. The possibility, therefore, that such may be the event, should always be stated fairly, and with proper qualification; the favorable indications being allowed their due weight. In this way, the minds of

those interested, will be in some measure prepared for the worst that may ensue, and yet not unnecessarily disturbed by the anticipation of an inevitable evil.

This, whilst it is the course most consistent with exact truth, so far as our knowledge of disease enables us to judge, is also, on the whole, the kindest toward those who are interested; for a few days' qualified apprehension of danger is far better than a feeling of security, which is founded on ignorance of the real probabilities of the case, and which leads to so much distress when the event shows it to have been false.

Morbid anatomy has thrown no light upon the nature of that affection of the brain and nervous system, which gives rise to the peculiar symptoms of Delirium Tremens. Indeed its history would rather lead us to expect, that these symptoms do not depend on any organic changes discoverable by dissection, but merely on a disturbance in their functions. Accordingly, the morbid appearances, which have been observed, are not such as can account for the peculiar character of the disease. They are such as are common to many affections in which the brain is implicated. In four cases, and in two of these the disease had been accompanied by convulsions, I have seen effusion into the ventricles, and upon the surface of the brain. Similar appearances have been frequently observed by others. But I am not aware that any other morbid appearances are recorded, and

these, it will be obvious, do not at all account for the phenomena, but may be rather regarded as consequences than as causes.

Where Delirium Tremens has been complicated with other diseases, the morbid appearances which those diseases usually present, will of course be exhibited. Since they do not, however, differ from those which the same diseases present in ordinary cases, it is not necessary particularly to advert to them. It is desirable, however, to remark, in confirmation of some statements which have been before made, that in cases beginning with severe acute disease, and ending in a delirium which has entirely absorbed and obscured the symptoms of the original affection, there have been found, after death, morbid changes which prove incontestably, that the original affection has continued, with unabated vigor, up to the very last moment of life. This has been particularly noticed in inflammations of the lungs, and of the stomach.

The treatment of patients with Delirium Tremens, is by no means confined to that period which has been designated as the paroxysm. Since, from the symptoms of many cases of disease in intemperate persons, we are led to anticipate attacks of this sort, it is as important to prevent the paroxysm, or prepare for it, when we perceive its approach, as it is to conduct the patient safely through it, when it is actually present. In speaking of the treatment, therefore, we are constantly to keep in view these two distinct inquiries;

1. By what measures may we prevent an attack of Delirium Tremens, when it is threatened?

2. By what measures may we arrest or alleviate the paroxysm, or carry the patient in safety through it?

With regard to the first inquiry, little can be said here, which may not be more intelligibly introduced hereafter. It may only be remarked in general, that whatever tends to alleviate or remove the symptoms with which the patient is first attacked, or to soothe and quiet the mind and nervous system, will contribute to the prevention of an attack of the delirium. There are in fact no direct means to be made use of, no remedies to be administered with this particular view. If the paroxysm is to be prevented, it is to be prevented by the judicious use of such general measures as will be spoken of in treating of its management.

There has been much uniformity of opinion among physicians concerning the object to the accomplishment of which the treatment is to be directed during the paroxysm. This object is the procuring of sleep. The absence of sleep is one of the most remarkable symptoms of the disease. When it terminates favorably, it terminates in sleep. It is not without foundation, therefore, that the treatment has had for its primary indication to bring about this termination. The patient, it has been emphatically said, "*must sleep or die.*" There is no doubt that this is true. But may it not have been too hastily concluded from this undeniable position, that sleep must be procured

by the assistance of art, or the patient will die. It is possible that the common impression which has been produced on our minds concerning this, is erroneous in two points of view; 1. We have concluded that sleep is the cause of the salutary change which takes place in the disease; and 2, that sleep in whatever way induced, will have the same effect, and that it is therefore to be induced by artificial means.

In order to determine, concerning any disease, what influence our remedies actually exert upon it, we must first ascertain what will be its course and termination if suffered to go through its usual series of changes without the interference of art. This is a point in the history of diseases to which reference should always be had in deciding upon the principles, or calculating the efficacy of the treatment to be employed. This is particularly desirable in those diseases, which, like that now under consideration, have but recently become the subjects of medical observation and inquiry.

I have witnessed a considerable number of cases of Delirium Tremens in which the patient, after the establishment of the paroxysm, has been left to contend with it, without the administration of any remedy whose tendency was to cut it short, or in any decided way to modify its symptoms. The active treatment has been confined to the period of indisposition preceding the paroxysm; and after its accession articles of a negative character alone were administered, with the exception sometimes of purgatives. The result

has uniformly been, that the disease has gone through that regular course, which has been already described in the former part of this paper, and has terminated in the manner there described, at a period seldom less than sixty or more than seventy-two hours from the commencement of the paroxysm.

The termination in these cases has also been almost uniformly favorable, except where there has been a combination of the delirium with some acute disease in itself dangerous, or where it has appeared in connexion with some fatal chronic malady. This course has been pursued, I do not mean to say without any deviation, but without any deviation which I believe to have essentially affected the result, in about fifty cases of the several classes which have been described; and although several deaths have taken place among them, none are recorded, except among cases, which I have arranged, whether justly or not, in the third and fourth classes.

It may be stated, in confirmation of the opinion now expressed concerning the natural tendency of the paroxysm to terminate in a spontaneous and salutary sleep at the end of a certain period, that, even in the reports of cases, which have been submitted to the public as evidences of the efficacy of various modes of practice, sleep has not actually taken place sooner than it would have done in the natural course of the disease, if the history which has now been given of it be founded on correct observation. In the cases which I have formerly treated with opium,

and which have at last terminated well, a salutary sleep has not actually taken place till toward the close of the third day, let the quantity of opium be what it would. I have indeed seen sleep induced by opium at an earlier period, but it was premature, it passed into a state of coma, and the patient died.

I am satisfied, therefore, that in cases of Delirium Tremens, the patient so far as the paroxysm alone is concerned, should be left to the resources of his own system, particularly that no attempt should be made to force sleep by any of the remedies which are usually supposed to have that tendency; more particularly that this should not be attempted by the use of opium. I do not undertake to say that it can be never right to administer opium for the removal of the paroxysm itself, but I believe it can be rarely necessary, and I have not yet seen a case in which I think that it was.

It is no doubt very difficult to compare the success of the practice of different individuals; it is even difficult for an individual to compare the success of different modes of practice in his own hands at different times. The first cases of Delirium Tremens, which occurred to me, were treated exclusively with opium in large doses, then (in 1817) the popular practice of the day. The proportion of fatal cases was such as to satisfy me, in no very long time, that if this remedy did no harm, it certainly could do little good. Subsequently the emetic practice, introduced by Dr. Klapp, came

somewhat into favor, and though by no means uniformly successful, and never, so far as I know, cutting short the disease after it was once fairly established, it was far more satisfactory in its results than the treatment by opium. Various other remedies have been proposed, which I have either employed, or have known the effects of in the practice of others; but with none has the success been any greater than with the *expectant* mode of practice. I do not mean to claim even for this, a success so remarkable as that which has been claimed by some writers for the practice with opium. I would only state what has been the impression produced by a very considerable number of cases on my own mind.

No doubt the most prevalent opinion of physicians, with regard to the proper mode of treating Delirium Tremens, is in favor of the administration of opium in such doses as will procure sleep; yet, as has been already suggested, other plans have been proposed, and are preferred by a very considerable number; whilst many highly respectable practitioners still profess themselves unsettled in opinion concerning its proper management. A diversity of opinion concerning the treatment of any disease, may be generally considered as indicating some uncertainty with regard to the efficacy of any of the measures employed. Physicians in actual practice have not been uniformly satisfied with the degree of success which has attended the administration of opium. or they would not have been frequently searching, as has

unquestionably been the case, for other remedies. Notwithstanding the almost unlimited success which has been claimed for the opium practice, by some who have written in its favor, physicians in general do not find it equally successful, or they would not seek for anything better. A specific remedy easily administered, attended with no unpleasant accompaniments, and generally successful, would never be thrown aside, even a moment, for the sake of trying experiments with new remedies. We never hear the efficacy of sulphur in the Itch doubted. It is true, new remedies are sought for, not because sulphur is an uncertain, but because it is a disagreeable remedy. There could be no such reason, if opium were a specific, or a tolerably successful remedy in Delirium Tremens. Its exhibition is easily managed. Practitioners have not been disappointed in its efficacy because they have failed to administer it rightly, but because they have not found it to answer the expectations which the representations of its advocates excited. The uncertainty of opinion among physicians, therefore, concerning the use of opium, and indeed generally concerning the proper treatment of Delirium Tremens, is a practical proof that no one method has any superior or exclusive claim to our confidence; or at any rate, that opium does not command the great success which has been attributed to it.

So far from being beneficial, I believe there is ground to believe, that the effect of opium given

during the paroxysm, is to increase the violence of the delirium, to produce a tendency to convulsions, to prevent the termination by a natural and salutary sleep, or to throw the patient into a state of coma from which he does not awake. I do not mean to say that these effects are often produced. There is in this disease, as in some others, a happy insensibility of the system to the action of remedies, which allows it, in a large majority of instances, to take its own course essentially unaffected by them. It may seem presumptuous to make this statement in the face of such authorities as have written on this disease. But many, if not all, have taken it for granted that it is to be treated by medicine; they have never trusted to the spontaneous efforts of nature for a cure. Having pursued a different course myself, I am prepared to say, that there is the difference pointed out above, between the cases which I have treated without opium, and those which I have treated with it myself, or of the treatment of which by others I have seen accounts.

But I have also feared that the unfavorable effects of opium have not been confined to its administration during the paroxysm. It has happened in several instances, that the symptoms of the paroxysm have manifested themselves in cases where they had not been particularly apprehended, very soon after the exhibition of opium. I do not mean to say, that I have evidence to show that opium is in all cases injurious in the diseases of the intemperate, or that it

should never be employed. There are sometimes symptoms which absolutely demand its use, even at the risk, if there be any, of inducing Delirum Tremens.

The cases where Delirium Tremens seems to have followed directly on the use of opium, have been those chiefly in which it has been employed to check or control some dangerous or inconvenient symptom. Thus it has come on in cholera, and in the vomiting of drunkards from irritable stomach, soon after opium has been given to subdue the violent symptoms; or in dysentery and diarrhœa after it has been used to stop the evacuations from the bowels; and this, whether it has succeeded in effecting the intended object or not. This coincidence has happened in so many cases as to lead to a suspicion that it might be something more than accidental.

It will follow, from what has been said, that we derive no advantage from any direct attempt to produce sleep, and thus to cut short the paroxysm. In what then, is our treatment to consist? Are we to leave the patient wholly to the resources of nature and his constitution, or are we to endeavor to promote indirectly that salutary termination which we have no means of bringing about directly? It is not intended to imply, that we can do nothing for the disease in any way, or at any period. Something may be done to carry the patient safely through it, and sometimes to prevent it.

When the attack of Delirium Tremens is preceded

by acute disease, the treatment in the first stage will be governed by precisely the same laws as those which direct us in ordinary cases. That course which is most likely to relieve the original disease, is most likely to prevent the attack of delirium, or if it do not prevent it, to make it run through its course in safety. The great danger in these cases arises from the complication of the severe disease of an important organ, with the unbalanced and irritated state of the nervous system. The only precaution to be taken, when we apprehend this result, is to effect the cure of the original affection, with as little reduction of strength as possible, (and this is a precaution necessary to be taken in all cases of disease in the intemperate,) and, when possible, to avoid the administration of opium for the alleviation of symptoms, which are usually benefited by it.

But with regard to the Delirium itself, we shall best convey a view of the principles, which are to guide us in its treatment, by passing briefly in review the remedies which are applicable under different circumstances to patients who labor under, or who are threatened with it.

Blood-letting is a remedy, which the symptoms would, on a first view, suggest as highly appropriate. It has accordingly been adopted, and at first, indiscriminately, without reference to the nature of the case, or the stage of the disease. Hence its reputation has fallen much lower than it really deserves. It may be often employed with great advantage, and

it probably succeeds more frequently in preventing or mitigating the paroxysm, than any other remedy, emetics alone perhaps excepted. It is very satisfactorily shown by Dr. Hayward, in an examination of Dr. Sutton's work on Delirium Tremens,* that all the cases which were treated with opium, and whose successful termination was attributed to the use of that drug, had been bled at some stage of their progress, either before the occurrence of the delirium, or very soon after its access. This accords with such observations as I have been able to make. The most remarkable cases in which the symptoms of approaching Delirium Tremens have subsided without its occurrence, have been when bleeding, either generally or locally, has been adopted.

In resorting to general blood-letting, we should of course be much governed by a regard to the constitution, previous health, &c. of the patient. Old and worn-out drunkards would probably be always the worse for it; but there are few other cases in which it will be injurious in the early part of the disease. In cases where the pulse is hard, strong, and not very rapid, where there is some pain in the head, with a flushed countenance, and a skin rather dry than moist, venesection is particularly indicated, and will serve to mitigate or prevent the attack. The objections to this remedy seem most likely to have arisen from its employment in too advanced a period of the disease. It is then only that it can be abso-

* New England Journal of Medicine and Surgery, Vol. XI., 1822.

lutely dangerous. It would seem almost evident, before experience, that if persevered in with a view to the removal of the paroxysm, after it has been once fairly established, and after the skin has become moist and flabby, the pulse rapid and weak, and after all the symptoms indicate a state of high irritation, it must be injurious if not fatal. It is probably this use, or rather this abuse of the remedy, which has led writers to denounce it in unqualified terms.

Local bleeding is more universal in its adaptation to Delirium Tremens, and may be employed in a majority of cases. It appears to have an effect to render more safe, and sometimes to prevent the paroxysm. I know how liable we are to over-rate the effects of remedies, of whose efficacy we have formed a favorable opinion; and it may be so with regard to this. But I believe that there is decided benefit in most cases, in bleeding from the head and neck, by leeches and cupping, at any time before the paroxysm, or during the first day of it. I have even employed it on the third day with the apparent effect of hastening the favorable termination. This was in the case of a man of sixty years old, of a highly irritable temperament, in whom the disease was accompanied by no local affection. On the evening of the third day, when he was violently delirious, the application of twenty leeches was followed by an *immediate* mitigation of the symptoms, and in a very short time he fell asleep. It is not to be inferred that in this case the loss of blood had any influence on the

final issue of the case. It would probably have been terminated in the same way in the course of a few hours by the spontaneous efforts of the system. But the decided and direct effect of the remedy was such as to show the influence which it is capable of exercising.

In a large proportion of cases of Delirium Tremens, the digestive organs are deranged in the same way that they are usually found to be in intemperate patients, with whatever disease they may be affected. This is often the only disorder which can be detected previously to the attack of the delirium. To remedy this state of the digestive organs, emetics may be administered with great benefit.

They have also been recommended as a means of cutting short the disease and inducing sleep, after the paroxysm has been fairly established. It has been supposed that there is a morbid condition of the stomach, in patients with this affection, which occasions the disorder of the brain and nervous system; and that powerful emetics remedy this condition, and prevent or cut short the paroxysm. It is not impossible that this is the case, and the authority in favor of the practice is highly respectable. Yet the evidence is not sufficient to show that the accession of sleep is hastened by their administration. So far as I have tried emetics, though as above stated, they may have had a favorable effect on the digestive organs, and improved the general state of the system, when given before the paroxysm, sleep

has not been produced at a period anterior to that at which it were to have been otherwise expected.

No particular advantage arises from purging carried to any great extent. It is desirable in the beginning of every case, unless the bowels are in a perfectly natural state, to clear the alimentary canal thoroughly by some active cathartic; and afterward to maintain it in an open state by gentle laxatives. It is also necessary where the secretions are in a depraved state, to correct them by the use of the common alteratives. After the accession of the paroxysm, no medicines of this kind have any appreciable effect in modifying its course.

The use of blisters has been reprobated as tending to increase the severity and danger of this disease. The dread of them seems to have been handed down to us from one of the first writers who has treated of it; for it does not appear that they have been since much employed. It cannot be affirmed that they are usually found of any decided advantage; but having very frequently employed them, I am prepared to assert that they do no harm, and, so far as their irritation is an objection to their use, that there are few diseases in which they produce so little. I recollect one example, which well illustrates their innocence, at least, if not their efficacy. A man was brought into the Boston Almshouse for an abscess around the knee-joint, preceded by severe inflammation, which was the consequence of external injury. Delirium Tremens supervened. The patient had been bled,

and the emetic, and afterwards the opiate practice were put in operation upon him to their full extent. The day preceding the night when the paroxysm had a favorable termination in sleep, three large blisters were applied, one on the back of the neck, and one on the upper part of each arm; all of which took effect. At the time I attributed the favorable result to the vesication, since it came on so directly afterward; but according to subsequent observation it did not take place sooner than is usually the case in patients who recover. It is, however, sufficient to show, that the very extensive employment of blisters does not prevent, even temporarily, the salutary termination in sleep, since the irritation of the remedy was here at its highest point, at the very time when the patient became quiet and slept.

Mercurials have not, I suspect, been often given in Delirium Tremens, with any view to their specific effect on the system. The disease is too rapid in its progress to allow time for a ptyalism to take place. In a single instance, it was produced by large doses of calomel and opium, in an individual, who had been subjected to the operation of active emetics in the early part of his disease. A favorable sleep took place about the time that the mouth became sore; but no earlier than it may be expected in those cases which have not been treated by medicine.

The warm bath has been suggested as a remedy in this disease. I have never used it, and cannot therefore bear witness to its efficacy, but it is likely

to do good during the period which precedes the paroxysm. During the paroxysm itself, there can be no benefit which would in any degree compensate for the confusion, trouble, and exposure which must be occasioned by it.

Various other remedies have been from time proposed, and their efficacy supported by the narration of cases in which sleep has been supposed to follow, as the consequence of their use. Among these remedies are assafœtida, digitalis, hyoscyamus, valerian, prussic acid, sulphuric ether, tincture and infusion of hops, infusion of wormwood, and borax. Of nearly all these remedies, I have made trial in one or more cases, and some of them I still continue to exhibit; but I have found no reason for attributing any efficacy to their operation, in hastening the termination of the paroxysm.

Having premised these observations upon the general applicability of these remedies to the treatment of Delirium Tremens, we may close this account of the disease, by stating in a summary manner the course which should be pursued in its management according to the principles which have been laid down.

Where we are satisfied that the delirium is the immediate consequence of the excessive use of liquor in an individual previously in good health, no medical treatment is necessary. If the patient be left to himself, and be debarred from ardent spirits, the attack subsides spontaneously. In the worst cases no

medicines can be required beyond a dose of salts, and an infusion of valerian, of wormwood or of hops.

In those cases which are preceded by some general derangement of the system without any well defined disease, our course is to be determined by the nature of the derangement, and the state of the constitution. Where the patient is robust and vigorous, more particularly where in such a patient there has been convulsions or severe pain in the head, general bleeding should be freely adopted, and is the most important remedy. In almost all cases, let the constitution be what it may, local bleeding may be regarded as beneficial, if not indispensable, and it is particularly called for where there is dizziness, pain in the head, or much flushing of the countenance, with heat in the head and face.

When the digestive organs have been long in a deranged state, especially when the stomach appears to be loaded with a mass of secretions which are offensive to it, and which excite it to ineffectual vomitings, a powerful emetic of tartarized antimony is of essential benefit. In common cases a combination of ipecacuhana with the sulphate of copper or of zinc, is sufficient for the proper evacuation of the stomach. This may be followed by a cathartic of calomel, either combined with, or followed by some other article which will promote its full operation. It is afterwards only necessary to regulate the bowels by mild laxatives, unless some unusual symptom arise, which indicates a more active evacuating treatment.

This course, with the exception of general bleeding, may be pursued whether the physician be called before or soon after the commencement of the paroxysm. Little else is required in the large majority of cases. Particular symptoms may call for the administration of particular remedies; but of such a necessity a judgment must be formed in each case upon a consideration of the general principles upon which the disease is to be treated.

Still, although there are no particular remedies which appear to have any influence in the removal of the disease, there are many articles which I have been in the habit of prescribing, which do not interfere at all with the regular course of the disease, and have a grateful and supporting operation upon the system. Such are the infusion and tincture of valerian and of hops; an infusion of chamomile, a solution of carbonate of soda, or of ammonia, or of sulphate of quinine, &c. &c.

The use of spirituous liquors during Delirium Tremens, has been recommended as a means of promoting sleep. If I believed them really advantageous in this respect, I should hardly feel justified in resorting to them, since this must diminish what little prospect there may be, that the disease will be a means of breaking up the habit of intemperance. I have accordingly never recommended this practice, and if the views which have been presented of the course of the disease be founded on correct observation, it will appear probable that it has not had the influence which has been attributed to it.

The diet should in most cases consist entirely of nutritious liquids. But occasionally the appetite remains good, and the patient may be then indulged with small quantities of his ordinary food, particularly in the morning.

As little restraint should be exercised over the patient as is consistent with the circumstances of the case. It is usually necessary, from considerations of propriety, to confine him to his house, and perhaps to his room, but within the determined limits he should be as little controlled as possible. When circumstances admit, it is better that he should have free range within doors and without; the precaution being always taken of having some able-bodied person to watch his motions. There is little to fear from exposure; patients have been frequently exposed to the night air, to cold, and to rain, for hours, and with very insufficient clothing, without the slightest injury.

Patients should never be intrusted during the night to the charge of females alone. The strength of one or two men is sometimes barely sufficient to prevent them from that which would be imminently dangerous to life or limb. They are frequently disposed to jump from windows, from a wharf, &c. with the intention of escaping from imaginary dangers.

During the paroxysm it is well to persuade the patient to lie down several times in the course of the day, as in this way he may secure a little sleep. Toward the end of the third day, this is more important,

as the close of the disease is to be then expected, and the position for sleep may in some degree hasten its approach. When the critical sleep has actually taken place, everything which can interrupt it is to be obviated. The patient is to be kept in darkness and silence. Whenever he awakes, as he does occasionally, he may be supplied with drink or nourishment and encouraged to sleep again.

The treatment after the paroxysm, has in it nothing peculiar. The convalescence is generally rapid, and the health better than before the attack.

Very little remains to be said of those cases, which fall under the third and fourth classes. It is only necessary to remark, that when we are satisfied that the delirium does not take the place of, or suspend a previous disease, we are to proceed in its treatment much as if the delirium had not occurred; when, on the contrary, we believe that it does, we are to manage the paroxysm in the manner which has been now described.

The following memorandum are from manuscripts in a duplicate copy obtained of
the following Article was printed without the knowledge of the compiler; he hopes that
[illegible] will be a suitable apology for the
errors of the press."

ARTICLE V.

A BRIEF MEMOIR OF

WILLIAM DOUGLASS, M.D.

BY TIMOTHY L. JENNISON, M.D.
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It is matter of record, that the place of his nativity was Gifford, in the county of Haddington, a few miles from Edinburgh. His father was, in a public document, called a portioner, and had three sons, viz. Cornelius, William, and George, and one daughter, Catharine.[1]

There are good reasons for believing, that his parentage was respectable, and that seasonable care was taken to give him such kinds of knowledge as would tend to qualify him for a medical profession. But it is not known for a certainty under whom he received his earlier medical instruction.

In one of the publications in the Medical Repository, Dr. Holyoke speaks of him as "a disciple of Pitcairne." That eminently learned man died in 1713, when the Medical School of Edinburgh was but in embryo. The superior advantages for com-

pleting medical studies at Paris and Leyden were so evident, that he speedily repaired to the former of those places, in company with Alexander Samdelande and James Stewart, with both of whom he afterwards corresponded. They probably spent two or three years there, attending the public lectures, and other auxiliary studies. There also he imbibed and indulged his taste for botanical science, in the public gardens and elsewhere. And we have good reasons for thinking that he did not hastily leave Holland, as he tells us he was acquainted with the Latin, Greek, English, French, and Dutch languages. In June, 1716, he came to Boston from Philadelphia. During the year 1717, he visited the French and English islands in the West Indies, and returned to Boston in 1718.

Such was his family respectability in Scotland, or his literary merit, that he was the bearer of letters of recommendation and introduction to the venerable Increase Mather, and his son Cotton Mather, as also to Rev. Benjamin Colman.[2] He was courteously received by them, and some degree of intimacy arose between him and the younger Mather. In order to elucidate an important subject which occurred soon after this period, it seems highly proper to state that Dr. Cotton Mather had already been in England and Scotland, where he was treated with considerable attention by many literary people, and then, or soon after, was elected a member of the Royal Society. At that time, and subsequently, the approved papers

of said society were published in numbers, for two, three, or four months each; and Dr. Douglass then held the numbers 339 and 347, containing the publications of that society relative to the new mode of communicating and treating the Small Pox by inoculation. He lent them to Dr. Cotton Mather, and received them again, after he had read them at his leisure. As soon as that odious disease appeared in Boston, in April or May, 1721, it proved of a bad kind, (or was badly treated,) and an alarm was very naturally excited among all ranks of the people.

Dr. Mather having an enthusiastic belief of the safety and salutary introduction of inoculation at that juncture, wrote a circular letter to Dr. Nathaniel Williams, one of the selectmen and a physician, to be communicated to Dr. Douglass, and nearly all the practitioners, inviting them to introduce inoculation, and concludes thus:—Gentlemen, my request is, that you would meet for a *consultation* upon this occasion, and so deliberate upon it, that whoever first begins the practice, (if you approve it should be begun at all) may have the countenance of his worthy brethren to fortify him in it. June 6th, 1721.

Dr. Mather's acquaintance with Dr. Douglass was "but of yesterday," and although he might view him as a young man of much intelligence and merit, yet it seems he did not view him as sufficiently stable and qualified to take the lead in such a novel and

momentous, yet precarious understanding. Unhappily for his temporary peace, he forbore to communicate with Dr. Douglass in any direct way. Neither does it appear that any of the other physicians saw fit to give him early and seasonable notice of the circular. Meantime all the physicians, saving Dr. Boylston, declined meddling with the proposed undertaking. Besides, they did not incline to expose themselves to criminal prosecution, in the supposable case of losing any of their patients. Had Dr. Mather divulged all his views of this affair at first, to Dr. Douglass, candidly and explicitly, it might have greatly abated his decisive opposition, although without appeasing the angry feelings of his townsmen, who had no time for deliberation on the subject. It was wholly new to them, and the dread of it preponderated over every other consideration.

In defence of Dr. Boylston, we may here observe, that although he knew that by inoculating his own family or others, he subjected himself to high penalties, yet it must be said, that the disease was spreading extensively in the town. That the guards who had been placed by the selectmen at the infected houses, had been dismissed as useless; the nurses who had been in attendance on the sick, were every hour walking the streets, to take fresh air, or consult the physicians about any sudden complaints of their patients, without taking any special precautions on their part. His own wife had fled into the country, leaving with him their beloved son, of ten-

der age, and a faithful black servant. Upon these two he decided to make the momentous experiment, and it proved successful. He did not conceal the fact, choosing to abide the consequences. This proceeding, in defiance of the law of the Province for protection against the spreading of infectious diseases; and positive prohibition of the magistrates and selectmen; and in avowed opposition to the well-known feelings of a majority of the clergy, (ten to six) and inhabitants, could not but cause much excitement. The accommodating Governor (Shute) readily accorded with the general feeling; and appointed a day of fasting and prayer to avert the calamity. He and his council thought favorably of the measure, while the deputies took other ground.

Divers pamphlets, twelve or more in number, were published for and against these innovations.[3] The clergy, we have already remarked, were divided, and some of them had much to say on a subject they could not clearly understand.

Meantime Dr. Douglass inflamed with resentment at the ostensible neglect and treachery of Dr. Mather, instantly appeared in opposition to the practice of inoculation, and continued openly hostile to the *mode* of proceeding, while the epidemic lasted.

He withheld from inspection or republication in Boston, the London accounts, (the communications of Timonius and Pylarinus.) Much inkshed was occasioned thereby, and bitter recrimination.

It also became a question of conscience. Those

adults who died under its operation, were considered as self-murderers; and their physicians no better! In the opposition at this time, figured mightily, Mr. John Williams, a tobacconist, in more than one publication, replete with humor, and keen satire, if wanting good logic.

The Rev. B. Colman displayed his talents in a sensible well-written pamphlet. But as it lacked *medical* accuracy, it subjected him to Dr. D.'s irony.

The venerable Increase Mather came out also in an attempt to elucidate the subject, and reprobated Dr. D. as a liar, designing to "jeer and abuse the faithful messengers of God." This hasty assertion ought not to be admitted as approaching the truth; for no one of the American, British, or French biographers, whose publications are known, attach any such imputation to his character. Neither did Governor Hutchinson, who was his cotemporary, knew him well, and besides had an evident dislike to the man.

Neither would he have spared him in that respect, after having publicly noticed blemishes of a fainter hue. Dr. D. took his own way to defend himself. His first letter to his friend, Dr. Alexander Samdelande, in London, bears date December 22, 1721; and was verily a harsh, hasty, offensive production. His mind misgave him before he had closed it, as he adds in a postscript, that possibly he had been too rough in what he had written. He tells his own story, and then relates the arguments brought in

favor of the novelty, and then states his objections to the supposed improved method; and lastly a few remarks on the practice.

His second letter to Dr. S. is dated February 15, 1722. His object in writing it seems to have been to smooth over a part of what he had formerly written. To repel the charge of calumniation from himself, to disavow any imputation on the clergy *generally*, but not on all of them, and is constantly exclaiming against precipitancy in so momentous a concern. He calls it infatuation. And so it was. And if clergymen or others were to attempt the like in the same unguarded way now, they would soon find the strong arm of the magistrate raised in opposition to their project. Writing of President Mather, he says, the *venerable* Doctor Increase Mather deservedly esteemed by all in this country, his name and character with me shall be sacred. No provocation can oblige me to show him any disrespect. Of the son, he writes far otherwise. 'Tis from our enemies that we are to learn *all the truth*; and those best acquainted with Dr. Cotton Mather's private life and literary reputation, must decide whether Dr. D. was justified in stigmatizing him as "a man of whim, credulity, and vanity."

Dr. Mather's circular to the physicians was temperate, judicious, and by no means unreasonable. Neither party had viewed the subject in all its bearings; and both parties were ignorant of the important circumstance, that it was equally as infectious in

the one case, as in the other; and that it would be unfavorably affected by other diseases prevailing in the different seasons of the year. Hence it was, that the advocates for the new mode had not the forethought of forbearing to inoculate in the sickly months, or of secluding their patients from intercourse with others liable to it.

Providentially, the experiment was made in a healthy month, (June) and all the cases in July and August were favorable, excepting one of a lady, who probably had previously caught it otherwise.

Dr. Douglass was not idle or negligent at his post. He fearlessly reprehended what he thought amiss; did not spare the magistrates, the clergy, the physicians, or people of New-England. He assigned as reasons for declining to publish the accounts he had received from England, that he had more regard to the lives and health of his neighbors than thus to lead them into a snare. The obstacles against it that occurred to him, were, that spreading it was felonious, that it was sometimes fatal, that there was much hazard of communicating with it other life-lasting ailments. He censured the rashness of communicating it without taking divers precautions to protect others from its virulence. He exclaimed against beginning the experiment in the centre of the town; where at that time infection was not known to exist. Inoculating indiscriminately patients of all ages, without being assured of success on the young and healthy. Neglecting to petition

the government that none should be inoculated, till a record was made, so that the event should be known, and other precautionary measures taken. He charges the inoculators with *lying* and *equivocation*, while endeavoring to keep the public in the dark. Nevertheless, he admits the possibility of its becoming a specific preventative of the Natural Small Pox, if previously sanctioned by the Legislature, and managed by abler hands than old women, madmen, and fools; and (conjectures) further, that the subsequent evils of it may be obviated by the proper use of *mercury*, antimonial remedies, and sulphur. And wished to have the practice *suspended* in town and country, till some method or contrivance should be found out to make it more easy to the patient, and safe to the community.

All parties seem to have been faulty and indiscreet. Discord and want of harmony naturally followed.[4]

The first idea of a *Pest-house* was suggested to Dr. Francis Archbald, one of the oppositionists, by a common friend in the country. It was unheeded. The newspapers teemed with publications on both sides. Some were no doubt acted upon by others behind the scenes. Others had conscientious scruples in their minds, and many opposed it out of a regard to the public good.

Another writer observes, "How daringly bold this practice! For one single apothecary, without asking the Civil Power, or consent of the neighbors; yea,

against their fears, their cries, their clamors, to infect his family with a disease very mortal, and very contagious! If men, therefore, will have such practice, must they not make them (it) lawful? and withdraw from the community, into such places where there can be no danger to their neighbors, or else obtain common consent."

The account handed down to us by Gov. Hutchinson, of this extraordinary occurrence, is generally correct, but not wholly so. In vol. 2d, p. 273, he says, "Inoculation was introduced upon the occasion, contrary to the minds of the inhabitants in general, and not without hazard to the lives of those who promoted it, from the rage of the people." As the pamphlets published by Drs. Mather, sen. and jun., Dr. Colman, Dr. Boylston, John Williams, and some others, attracted much notice in their day, we cannot readily persuade ourselves that Hutchinson, young as he then was, did not read them at their publication, or listen to the remarks of others about them. One was dated, "From the south side of my Haystack;" another, "E meo mucaco," probably written by I. G. alias Isaac Greenwood, who was soon after elected Professor of Natural Philosophy at Harvard College. Now we must either believe, that Mr. Hutchinson did read the aforesaid pamphlets in a hasty, careless manner, or that he *shut his eyes* against the important fact that *Dr. William Douglass originally loaned to Dr. Cotton Mather the first printed accounts of Inoculation;* as though he was unwilling to allow any

credit to Dr. Douglass in the business. It is also scarcely credible that Mr. H. should not have seen Douglass' *Dissertation on Inoculated Small Pox*, which was published in 1730, and addressed to John Jekyll, Esq. Collector of the Customs in Boston. In that pamphlet, near the beginning, he gives a very modest account of the preceding fact in the following words. "The Small Pox spread in Boston, in New-England, in 1721, and the Rev. Cotton Mather having had the use of those communications, (of Timonius and Pylarinus) *from Dr. William Douglass*, surreptitiously, without the knowledge of his informer, that he might have the honor of a new fangled notion, sets an undaunted operator to work, and in this country, about two hundred and ninety were inoculated."

Be this as it may, we are beholden to the Massachusetts historian in his 2d vol. p. 274, for the following statement, viz. The justices and selectmen of Boston, called together the physicians, who after mature deliberation came to the following conclusion, "that it appears by various instances that inoculation has proved the death of many persons *soon after the operation*, and brought distempers upon many others, which in the end proved deadly to them. That the natural tendency of infusing such malignant filth into the blood of man is to corrupt and putrify it, and if there be not a sufficient discharge of that malignity, *by the place of incision or elsewhere*, it lays a foundation for many dangerous diseases; and lastly, that

the continuing the operation is likely to prove of the most dangerous consequences." We may also bear in mind, that what Mr. Hutchinson was pleased to call credulity in Dr. D. is now well established by observation and experience, to be matter of fact, as that of persons who (believed they) had received the Small Pox by inoculation, taking it *a second time* in the natural way. Of others who perished in a most deplorable manner from the corrupt matter which had so infected the mass of blood, as to render the patient incurable. At other times, he (Dr. D.) pronounced the eruption from inoculation to be only a pustular fever, and that the patient therefore had not the least security against the Small Pox afterwards by ordinary infection. But let us not withhold credit where it is due. Mr. H. goes on to say, "The faculty in general disapproved his conduct, (Dr. Boylston's) but Dr. Douglass made the most zealous opposition. He had been regularly bred in Scotland, was assuming even to arrogance, and in several fugitive pieces which he published, treated all who differed from him with contempt. At other times he pronounced the eruption from inoculation to be only a pustulary fever, like the Chicken Pock, and that therefore the patient had not the least security against the Small Pox afterwards by ordinary infection.

Dr. Dal'Honde's deposition taken to favor the opposition, was a singular production, a lasting blemish upon his pretensions to an honorable standing in the town of Boston.[5]

His presumption in writing such a farrago of inconsistencies was excessive, as its total falsity must sooner or later have been palpable; and if it were afterwards published in London to expose its absurdity, so also did it confirm its effrontery.

Dr. Douglass was at that time about 28 years of age, and probably less discreet than when he published his account of the natural Small Pox, and also his Dissertation on the Inoculated Small Pox, some eight years afterwards; and there is some cause for suspecting that he made use of Dr. Dal'Honde as a cat's-paw. The deposition was written in French, and translated by Dr. D. and Joseph Marion, who was perhaps "a busy-body." The selectmen of Boston at that time, seem to have been unequal to meeting such emergencies energetically; and the "beloved physician" who made one of their board, ought to have displayed more talent as a medical jurisprudent. Too often is our conduct inconsistent when we are hurried away in the vortex of party dissentions. Dr. D. did not divest himself of prejudice and illiberality. He published some flimsy remarks about Dr. Boylston; such as his inattention to procuring pure matter for inoculation; that having but a few patients in the natural way, he had recourse to the pus of his inoculated patients; and hints at the extra-contamination of some, who had been inoculated more than once; and that their subsequent chronic ails would ever be attributed to it. Dr. Boylston was his senior in practice, some twelve

years. Nevertheless, we may be allowed to believe, neither of them could have known much about that business, *at that time*. Dr. Douglass has recorded of himself, that in 1721, he was but a novice in the Small Pox practice.

It was not to be expected that he could have been firmly established in Boston, at so early a period, (1721.) But the decided opposition he made to the new mode of treating the Small Pox, soon brought him into general notice ; and as the danger from that loathsome disorder abated, so did the number of applicants for inoculation ; and ere many months had elapsed, the malady had disappeared. He was highly irritated at Dr. Boylston's proceedings, probably without the most cogent reasons ; and excited a hue and cry against the novelty, as being a rash experiment. But afterwards he retreated, acknowledging the propriety of it under suitable regulations ; and in 1730, when the disease appeared again, he took an active part in promoting it.

While the epidemic of 1721—2 continued, he was a sedulous observer of it in its natural state, and collected materials for his future publications on the subject. He now had leisure to review his earlier studies, and read the practical works of authors, then held in estimation, but with caution. He had been taught to consider Sydenham as the highest authority, in managing the natural Small Pox, and had implicit faith in his correctness, but soon had sagacity enough to see, and shun his few errors in practice, particu-

larly in the use of opiates after purgatives, and using "vitriolics" unseasonably. He laid much stress upon the *lædentia* and *juvantia*. In the account which he has left behind him, recorded in his loose manner, and scattered in too many parts of his summary, we find statements generally, of the numbers and deaths of those who had been the subjects of the disease in both ways.

From this early period of his life, his character seems to have risen rapidly in the estimation of his friends and the public; for we find, that in 1721, he was chosen Vice President of the *Scotch Charitable Society*, which office he continued to hold by annual elections, till 1728, and from that period to the time of his death, he was elected their President. The fair inference is, the members of it considered him worthy of their suffrages, and they had no higher honors to bestow. That society was originally established in 1657,[6] and continues to be cherished by the principal Scotch people in Boston, under an act of the Legislature incorporating it.

He was also acquiring celebrity as a physician, particularly among his countrymen, who to their credit, have long been a pattern for other nations in befriending each other in foreign countries. While a resident in France, after acquiring a competent knowledge of the language, he indulged in botanical researches, making many excursions for that purpose. Afterwards he devoted many hours to it in Boston and its environs. Is he not the only man of that

time in New-England, who did write on that subject and publish the same? His object, besides his own gratification, seems to have been, to induce others to afford their aid towards a system of *American Botany.* In like manner as he professed to publish at first in sheets or pamphlets his summary, to make the labors of future historians less irksome.

And well might he call the work laborious, assigning as a reason, that there was no dependence to be placed on the earlier printed accounts of New-England, since heedlessly they borrowed from credulous writers relating to things long since obsolete. He says Mather's Map of New-England was very erroneous; Southack's yet worse; Oldmixon's British Empire in America, a mere compilation from newspapers. Even Dr. Mather denounced it, saying he found eighty-seven falsehoods in fifty-six pages of it; and considers Neal's history equally unauthentic.

His practical Essay on the Small Pox of 1721—2, was published in Boston in 1730, having been compiled from his original materials, collected during the epidemic. In his address, prefixed to it, he tells Dr. Stewart, [7] "that he secluded himself from all other company but that of his patients, during that sickness, and committed to writing for his own reminiscence and private use, the remarkable cases which occurred, in a very extensive practice." A sound recourse for a useful work. There are too many people eager to write on subjects they understand but partially. For this brief and *original* production, he

appears to have been fairly entitled to the thanks of his contemporaries, as well as posterity. He was aware that his diamond had never been polished; and in another publication he modestly observes that a plantation writer must not be considered responsible for a finished production.

He told us all he knew in concise terms, in the plainest practical language; and if we take it in connexion with his remarks on the same subject, interspersed here and there, in the body of his summary, and in the notes subjoined, it will be found very instructive, and a useful *beacon* to the inexperienced. At that time, 1721, he was young, and never before had seen the disease, although he must have seen the writings of Mead and Friend, besides Sydenham's, and unquestionably failed not to compare their writings with the clinical knowledge he had recently obtained.

His Dissertation *on Inoculated Small Pox*, appeared about the same time in London, printed by W. Innys, we are left to conjecture the cause of its being printed there, without the name of the printer, or the time of doing it as is usual. It must have been written, or rather finished, after the epidemic of 1730, as he says, "I visited in the last *Small Pox* time, many hundred patients. I had not above half a dozen with subsequent imposthumations or boils, and having on this occasion inquired of most of the other practitioners, I find the proportions were very small when compared with these."

He appears to have taken much pains in collecting and compiling it, and says, "I kept a correspondence in England with respect to the benefit of inoculation from *unquestionable* facts for several years." It is probable that he was at heart *always in favor* of the improved method.

But having at first opposed it *totis viribus*, ostensibly, it became necessary to recant decently. On the occasion, he observes, "there have been too early, and too strong prejudices both for and against this method. They seem to have acted the fairest part, who exclaiming against rash and irregular procedure were willing to wait patiently, until time and a cautious experience should direct their judgment."[8]

After the royal family had adopted the improvement, and obviated the risk of criminality, the practitioners in Boston generally resolved to perform the operation when desired so to do, but without persuading or dissuading in the case. Dr. D. then encouraged the same by precept and practice, and his professional duties were arduous.

The Small Pox of 1730 was imported from Ireland in the autumn of 1729, and was confined to a few families till March, when it spread much. The watchers were removed, and it took its course, and (for the first time) inoculation was allowed. It continued till the last of October. It was not so mortal as in the preceding epidemic; but many of the patients labored with *purples* and *hemorrages*. The other physicians hitherto had considered these occur-

rences as a mortal scarlet fever, invading the town at the same time, and as a distinct distemper. Dr. Douglass was the first to point out their true nature, as deleterious symptoms generally.

The Small Pox in 1752 continued several months and was severe. Venesection had been in vogue, but at this period lost its reputation. The method of treating the disease was more judicious, because its nature was better understood. Dr. Douglass was early and ever in opposition to infecting the aged of all colors—gravid women,[9] and all those who were suffering under chronic complaints resisting a cure. In his laborious undertaking, the Summary, he intermingled his view of the disorder; some years after he wrote his Essays and Dissertation; and it well deserves the careful perusal of young physicians; and has been sanctioned by time and experience. Those pamphlets are *wholly his own production*, on subjects highly interesting to New England, and excepting Dr. Boylston's are the only publications of the last century in that day. We have already stated his attachment to botanical pursuits. He says he made a collection of more than eleven hundred plants in and near Boston. And it was his favorite amusement to describe briefly by their classical and proper names, those articles of the vegetable kingdom used as common food.

It is agreed on all sides, that Great Britain is beholden to Lady Mary Wortley Montague, for the early introduction of inoculation for the Small Pox. Many

and lavish are the encomiums heaped upon her for that supposed boon. "With so much ardor did Lady Mary enforce this salutary innovation among the mothers of her own rank in life, that much of her time was necessarily dedicated to various consultations, and in superintending the success of her plan." The Annual Register, 1762, p. 78, says: "the present generation, who have enjoyed all the advantages of inoculation, are inadequate judges of the extremely fatal prevalence of the original disease; and of their consequentially great obligations to Lady M. W. Montague;" other authorities are numerous.[10] Supposing the above remarks to be just, it is equally true, that the British North American Colonies are beholden to Dr. Douglass, for the early and very considerable knowledge of its practicability that was gained in our country the same year. It is true he never claimed to have been the first inoculator, but he was the sole pioneer who prepared the way for its demonstration by his *printed accounts*, which had been published some years before. He either brought them with him when he came to Boston, or had them sent to him afterwards. It has never been denied, that he did loan those two pamphlets (No. 339, and 347) to Dr. Cotton Mather, prior to the appearance of the disease in 1721. Had it been otherwise, the first inoculators in Boston must have waited for the tardy result of the experiments in Europe. So cautious and timid were the inhabitants of England, that for many years they had not inoculated a number equal

to that which occurred at Boston and Roxbury in 1721–2, only, and the accounts of its early success in New England were potent inducements for perseverance on their part.

In May, 1735, the Angina Maligna made its appearance at Kensington, in New Hampshire. The first forty patients, mostly infants, all died; and in a few towns near Portsmouth more than a thousand of all ages and sexes were cut off.[11] Before that period, the Anglo Americans had very generally considered the Angina as an highly inflammatory disease, and treated it successfully. The true nature of this epidemic was tardily displayed at its first appearance—neither does its virulence seem to have excited apprehension as it ought. The physicians were the more blinded, because *neither they* nor other adults became victims to it. Later and more cautious observation taught them that children under the age of pubity were much more liable to its ravages.

In August or September it first was noticed in Boston. The cases were mild, and adjudged to be only "common colds." But the alarm was soon given by the death of a young man aged 20, from the vicinity of its origin (Exeter.) It seems that it had been creeping about nearly a month, before it excited much alarm. "And the physicians having by desire of the Selectmen held a consultation, published their opinion, that it proceeded entirely from some *occult* quality of the air." It seems they were

willing to conceal their ignorance of its true nature, under a vague expression, which had been too frequently found in the writings of Sydenham. The Boston News-Letter of April 9th, 1736, stated that in that town, the physicians did not take it, nor convey it to their patients or families. Dr. Douglass computed the number of the sick at 400, of whom 114 died, which is one in thirty-five. The whole number of inhabitants were estimated at 16000,* and as no one had undertaken to write on this subject, to quiet or enlighten the anxious community, the subject of this memoir had his talents called into requisition by general consent. And as we have no other printed account of this disease, which then prevailed, and as the pamphlet has long since been out of print, we hope to be excused for inserting in this Memoir, his preface, viz.: *Account of the Miliary Fever and sore throat of* 1735–6.

"To a Medical Society in Boston. Gentlemen; This piece of Medical History does naturally address itself to you, considering that I have the pleasure of being one of your number. That you have been fellow-laborers in the management of the distemper, and therefore competent judges of the performance; and that where difficult or extraordinary cases have occurred in any of your private practice, I was favored to visit the patients, in order to make a minute distinct inquiry: in short, without your assistance, this piece would have been less perfect, and not so well

* Holmes's Annals.

vouched. As this distemper continues to spread and prevail, in several towns of this and the neighboring provinces, I thought it might prove a piece of humanity and benevolence, if, after many months' diligent observations, made in the most of the varieties which occur in the illness, I did endeavor to reduce them to some easy distinct historical and practical method. The vanity of appearing as an author or writer, was no inducement, because we all know that in a plantation life, neither honor nor credit are to be acquired by writing. It is not published by way of quack bill, to procure patients, and their money, as has been the practice of some in Boston. And while it prevailed here, I could not well have attended more patients than what I had from time to time under my care, and make with attention the proper observations at the same time. A secondary reason for my writing is, to induce some gentlemen of the profession in our other provinces and colonies, where this distemper does, or may prevail, to give some account of its appearance with them, in order to discover what influence progress of time, variety of climate and soil may have in the phenomena of this disease. This method of taking things originally, that is from the life, if pursued (but by abler hands) in the epidemic distempers which may from time to time happen among us, may be of considerable advantage in practice. A speculation that is a *novelle*, might have been composed sooner, but not a real history. For among naturalists many repeated observations and experi-

ments are requisite to form established truths, or conclusions: so it ought certainly to be in the practice of medicine, where no affair of speculation or curiosity, but life and death of a fellow-citizen is the object of our inquiry. Yours, &c.

W. D.

This his work was published in 12mo., 1736, in Boston, and is the more interesting, as it shows us that Dr. Douglass was in the daily use of mercurial remedies. In 1721 he used calomel in bad cases of Small Pox, and availed himself of salivation where necessary.

Dr. Gale of Connecticut must have been erroneous in his dissertation on inoculated Small Pox, where he asserts that mercury was not used in the American Colonies before 1745.

Lieutenant Governor Colden's Letter to Dr. Fothergill, published in the Medical Observations and Inquiries, Vol. 1st, dated Oct. 1, 1753, says: "What I chiefly learned (about the throat distemper) was from the late Dr. Douglass of Boston, a gentleman of great skill in medicine, and an accurate observer, having corresponded with him while this disorder was frequent where I live. The only successful method of cure was first discovered by him, A. D. 1736, and published soon after; though in the country places very little regarded afterwards. He informed me, that he found well dulcified mercury of use in the *throat distemper*, especially when joined with camphor."

We have good reasons for believing, that Dr. Douglass was in full respectable practice from 1736 to 1745: all the principal practitioners aiding him in framing and publishing the last mentioned work. But the feathers in his cap were soon viewed with jaundiced eyes, and the demon of discord let loose. From his writings it seems he held in very low estimation many of the medical gentlemen in Boston. And his uncourtly exposure of their weaknesses served to make their resentments life-lasting. A few of the physicians in Boston and vicinity cultivated an intimacy with him till the time of his death, which dissolved all associations, rationally or madly formed.[12] A much esteemed medical man, now living, writes thus about Dr. Douglass: "The most that I know of him was from my mother, who had been sick in Boston, and attended by him very assiduously. At this time he was considered a prominent character in his profession, and no doubt he was a learned man. He was a man of violent temper, over which he had little command, and was not on good terms with his brethren of the profession. I was early prejudiced against him, hearing much of him in my early life." On the contrary, Dr. Holyoke, who was the medical instructer of this writer, says that Dr. Douglass "was an intimate acquaintance of some of the most eminent practitioners in Boston."

To calculate, compile, and methodise an accurate almanac, is not boy's play. We find he made one, which has been pronounced "useful for the time, and

now also for its list of chronological events." It was called Mercurius Novanglicanus, by William Nadir S. X. Q. and calculated for the year.

We do not learn that it was an emolument to him, but a monument of his mathematical industry. His contemporary, Dr. Franklin, published an almanac in 1732. He made it both entertaining and useful, and it came into such demand, that he printed and sold near 10,000 annually.

In Watt's Bibliotheca Britannica, we learn that honorable notice has been taken by Dr. Smellie, of a letter Dr. Douglass wrote him, on the use of the forceps in midwifery. His French biographers also say, he wrote a tract (traitè) on the Hydrocele.[13] In the early part of the past century there were in Boston but very few medical men professed *accoucheurs.* Dr. Douglass tells us he was consulted in a few difficult cases of parturition. That practice had Douglass, Bulfinch and Lloyd, for three of its supporters. We do not know that he made pretensions to honorable fame, as an expert practical surgeon.

It has already been noticed, that he he did not conceal his sovereign contempt of medical misfeazances. In more than one place in his writings, he speaks slightingly of many of his brethren, saying, "there is frequently more danger from the physician than the distemper;" and detests the quackery made use of in Boston and elsewhere; and quotes an advertisement in the New York Gazette, Dec. 16th, 1751, which he considers incomparable, if we except one other pub-

lished in Jamaica, (immediately after the great earthquake) of pills for sale *to prevent persons or their effects suffering by earthquakes.*

In the following page he says, "In the most trifling cases they use a routine of practice." Soon after his arrival in Boston, he says, "I asked G. P., (George Perkins,) a noted facetious practitioner, what was their general method of practice? He told me their practice was very uniform;—bleeding, vomiting, blistering, purging, anodynes, &c.—and if the illness continued there was repetendi, and finally murderandi." Nature was never to be consulted or allowed to have any concern in the affair. His avowed use of mercury induced Holyoke, Stockbridge, Tufts, and others out of Boston to confide in it. Alcalized mercury, as also turpeth mineral, combined with ipecacuanha were favorite remedies.

It is rather singular that in all his medical publications, we do not find any medical instructer named in compliment or otherwise. Probably he was the last of Pitcairne's pupils, and that *learned* physician's biographer tells us he could not induce his own pupils to give full credence to his singular theory. And he makes but one quotation as an authority from him, viz.:—"Dr. Pitcairne's problem *dato morbo, remedium invenire*, is not very intricate, where the nature of the distemper and indications of cure are ascertained." Although some families in Scotland of his name were high in office, and some of them wealthy, yet we have reason to think his father was not afflu-

ent.[14] It behoved Dr. Douglass to acquire and save his property. In Governor Shute's administration, he was much embroiled in the Small Pox controversy while attending to his common duties. In Governor Belcher's day he was a quiet peaceable subject, yet noticing passing events. He seems to have been felicitious at an early day in discerning the very gradual progress of depreciation in the currency, and ever on his guard against its demoralizing effects. He loudly applauded Governor Belcher for his strenuous and unremitting efforts to restrain and cure the evil, and continued to his last hour, denouncing it as a curse of the day. To saveh is earnings, as early as 1724, he with a few associates, purchased of the province, lands at the southwest corner of it in the township called after his name, and interested himself greatly in its early settlement. He gave to the inhabitants a valuable lot for the future benefit of schooling. Also, 400 acres of land near the centre of the town: one half of it for the first settled minister, the other half for the use of the resident minister forever. He also contributed liberally with Mr. Morey towards the erection of a Meeting-house for public worship. We do not know that he made any remarkable pretensions to sanctity of life, but he certainly was solicitous to encourage the few people there, in the observance of religious duties.[15] Many years before Dr. Douglass came to New England, Major Simon Willard and others had established their celebrity for *shooting and scalping* "the sons of the forest."

To compensate for their doughty service, the provincial legislature granted them *twelve miles square* of valuable lands now comprising the towns of Rutland, Oakham, Barre and Hubbardston. In 1736 and 1741, Dr. Douglass purchased of Willard's heirs 3000 acres of those lands as being more permanent property than depreciating paper money. He also made other valuable purchases elsewhere of wild lands in the counties of Worcester and Hampshire, and at the time of his death, resided in the house lately known as the *Green Dragon tavern*. Several other estates in that street, and Hanover-street belonged to him.

He always disavowed any lucrative motives for writing as he did. Undoubtedly he had an itch for political scribbling, and indulged it to excess on some occasions. He was a warm advocate and supporter of Governor Belcher's administration, which ceased in 1741. He extolled him for *adhering to his instructions*, and striving to liberate his own province from the disastrous consequences of a paper medium under the *Land Bank Speculation*. Afterwards he saw clearly that his successor (Shirley) came into office, clothed with *the very same* instructions. Yet, Jesuitically, he overleaped them, choosing to glide tranquilly down the stream with the current; screening his conduct from animadversion, under the lowering horizon of the existing Spanish war; and that he was so hardy as to reinstate his predecessor's implacable enemies in many important offices unnecessarily, and acquiesce in the continuance of the pes-

tiferous system of multiplied emissions of paper money, so long as his perquisites and allowances were made him *in advance*. He openly denounced such management, especially as he was from month to month witnessing nay feeling the depreciation of the currency. He applauded some parts of Shirley's political conduct, but "damned to infamy," more of it. In very truth, he was a thorn in his side. His excellency was alarmed at learning that Dr. D's summary had a keen bearing on his administration, and made repeated indirect efforts to induce him to desist, subsequently endeavoring to obstruct its first 8vo edition. No doubt he thought he was writing, as an historian ought to do, impartially. But we must hesitate in giving full credence to all his asseverations. He has been charged with persisting in his errors, and never retracting them. This is not correct, in one well known instance. Before his death, he saw, and apologized (rather reluctantly however) for his former intemperate remarks on the conduct of Commodore Knowles in 1747, in the impressment of a few apprentices and others.

He was personally known to his excellency before he came to the chair; but probably never was in his good graces. He avowed his independence on political characters, and his easy circumstances, by writing, "Once for all, I declare I have no lucrative views, because, mihi tantum suppetit viaticæ quantum vitæ."

Many of his remarks on the conduct of the clergy favoring inoculation in 1721, when he was compara-

tively a young man, were pungent. Most probably they would have been suppressed, had he been treated by Dr. Mather, according to the *golden rule*. It is also highly probable that he was the first man to inform John Williams, "the tobacconist," that the serene states of Holland made a law to prevent ministers meddling with state affairs: because their work was not temporal but divine; and the intermixing them was not safe for the commonwealth. The law was, "that if a minister intermeddled to dictate people about their affairs, the government was to provide him *a pair of new shoes* and a staff, to lead him to the outside of the town, and let him return to his pulpit no more." Lapse of time has neutralized his caustic remarks about Rev. George Whitefield, who is now considered generally to have been what he professed to be, an honest man.

From the first settlement of Massachusetts, the clergy had had an almost unbounded influence in church and state. The animosities and dissentions aroused by the then novel mode of inoculation for the Small Pox, had much injured them; and loosed the hold they had had on the minds of the community. Many of their friends censured them for intermeddling with the "things of Cæsar." Dr. Douglass made some sarcastic observations which it would better have become him to have suppressed. He was faulty, who is impeachable? The heathen poet long since said, "vitiis nemo, sine nascitur, optimus is ille qui minimis urgetur."

Dr. Douglass says, The society for propagating the gospel in foreign parts is a very good, pious, and laudable design, but unjustifiably managed in British North America; and adduces what he considers strong proof of the asseveration. Often he apologises for the apparent intemperate language he uses, and says, I write with freedom, impartial disinterested readers will excuse me in quality of a disinterested historian. I have no personal disregard or malice, and do write of the present times as if these things had been transacted an hundred years since. If any of them should be angry with me, I give them this short anticipating answer: "I am independent, and of no party, but that of truth."

Elsewhere he says, neither can any man trace me as a plagiary. My own observations, hints from correspondents, and well approved authors, are the materials of my history. Nevertheless he affects to crave a truce with any unknown, unseen rival. "I hope critics, natives of our colonies will not reckon it presumption in me to essay the following account. Especially as at present no native appears to undertake this laborious but useful performance—not of genius, but labor and method to render it distinct and clear." This caveat was written soon after the capture of Louisbourg in 1745, from which it may be inferred that he then had had no intimation that the subsequent Massachusetts historian, (Gov. Hutchinson,) was collecting his materials for composing the very valuable work which he published in 1760, and

the 2d Vol. in 1767. It is well known that Gov. Shirley cherished a scheme very early for surprizing the fortress of Louisbourg, which in fact then had a garrison of six hundred regular troops, besides thirteen hundred militia. As soon as the measure was resolved upon, Dr. Douglass set his face very earnestly against such a hazardous as well as impracticable proceeding. He calls it the very, very, very rash, and very, very, very fortunate expedition against Cape Breton or Louisbourg ; and afterwards he always held it up as *quixotism*, and although it succeeded, he remarked that it was at the loss of 3000 young men to the province, besides those who lost their self-respect, and usefulness otherwise. In a note he observes, perhaps our administration did not understand the doctrine of chances. But by kind Providence, although the chance was upwards of a million to one against it, we gained the prize ; not by playing away men in being killed, but by the poltroonery of the French garrison. It has been said that he furnished many paragraphs for one of the newspapers of that day, predicting an unfortunate issue of the expedition; afterwards he screened himself from ridicule by observing, that fortune always *waits upon blunderers and quacks.* He was a true patriot—censured the British Government for detaching 500 healthy young men from Massachusetts for the Cuba expedition, whereof 450 never returned, causing a heavy and unnecessary loss to our young agricultural country.

Soon after the capture of Louisbourg he began

earnestly to arrange his materials for his historical and political Summary. As much of it had heretofore been published in sheets or pamphlets, from time to time, as suited his convenience, this work in two octavo volumes was favorably received. The first volume appeared in 1749. The second was not finished till after his decease. It embraced an account of all the American Colonies, save a part of Virginia, the Carolinas and Georgia. A very lean sketch of these was supplied by some friend of his from Salmon's Geographical Grammar, 1753. In divers parts of this work he wrote not a few grating remarks upon the political conduct of Gov. Belcher's successor, and never retracted them, because he could not see that any reform in the case had been manifested. It appears also that some parts of the work were exceptionable and offensive. What he then wrote was probably true in the main, but malapropos in its publication. Recently we have been gratified by the long wished for edition of Governor Hutchinson's third and last volume of the history of Massachusetts. Few people could have written so impartially as he did, considering how delicately he was situated. One solitary instance must be excepted. He had been a confidential friend of Gov. Shirley, and labored very strenuously as well as ingeniously to defend his administration in every point of view. To effect that object it seemed necessary to him to degrade Dr. Douglass as a writer of credibility. His own words are, "Douglass had been

bred in Scotland, was assuming even to arrogance, and in several fugitive pieces which he published, treated all who differed from him with contempt. He was credulous."—2d vol. p. 273. In a note p. 80, he says, Douglass, whose foible it was to speak well or ill of men, very much as he had a personal friendship for them, or had a personal difference with them, of which I may instance more especially in his most elaborate endeavors to set Mr. Shirley in a disadvantageous light, by his labored encomiums of several I choose to avoid mentioning, because for some of them he had other foundations, had taken up a prejudice against the two Mathers, father and son, and remarks upon the occasion of this act, (establishment of admiralty courts,) "It is said, that A. D. 1693, there were some Boston gentlemen representatives for some of the out towns, but not agreeable to Rev. J. Mather, Mr. Byfield is mentioned, Mr. Mather of great interest with the weak Gov. Phipps and with the devotionally bigoted house, procured this act." The long continued misunderstanding between Dr. Douglass and Dr. Cotton Mather was notorious. In February, 1722, Dr. Douglass' second printed letter addressed to Dr. Samdelande, came before the public, and has already, in page 201 of this Memoir, been in part quoted, and invalidates the assertion that Dr. Douglass was at variance with, or prejudiced against *Increase Mather*. Douglass and Hutchinson wrote historically of Massachusetts to the year 1750, and the latter in his two first volumes did detect and publicly point out eight

errors which had escaped the forms. A later historian has remarked that Governor Hutchinson knew much more than he chose to publish (in his 2d vol.) In truth the man who writes the history of his own times may not depend on full credence.

Dr. Douglass intended to have a map of New-England affixed to his Summary, composed from actual surveys of the lines or boundaries with the neighboring colonies, and from the plans of the several townships and districts, copied from the records lodged in the secretaries' office, and town-records. This patriotic measure did not go into operation, as he died suddenly before it was prepared.[16]

It has already been noted that much attention was paid to his early education. His subsequent pursuits confirm it. The observations he made and published respecting the variation of the needle, and other abstruse points of literature, are evidence that he had been attentive to important branches of science. His remarks on *holy time* are deserving our special notice. He says the Spaniards of Manilla differ from the Portuguese of Macoa, an island near Canton on the coast of China, about one day. The Spaniards came by the western navigation from New Spain or Mexico. The Portuguese came by an eastern navigation from Europe. This occasions a clashing in their Sunday and other holy days, and is a demonstration that the identical seventh part of time for religious worship, festivals and fasts, cannot in the nature of things be observed, and consequently is not *jure*

divino, but admits of a latitude and variations naturally, or by civil institutions. Thus naturally our New-England Sabbath differs four hours forty-five minutes from that of England, and is observed according to the course of nature. Since the seventh part of time for rest and divine worship cannot possibly be identically the same, but must differ as longitudes do. Some other differences in observation of time are not essential to religion. Some reckon the day before the night, some the night before the day, as do the Mahometans and others.

The old and new styles make a considerable difference in our holy days. They who follow the old style in their holy days are to a demonstration in the wrong. Yet notwithstanding some of the Church of England, and other churches who follow the old style, clamor much against the non-conformist, who do not observe their Christmas, Easter, and other erroneously established holy days. In short, it would appear to a man of an indifferent persuasion void of prejudice, that in the nature of things the Deity has left it with civil power to regulate these matters. As evidence of the correctness of the above, is now added a quotation from Hon. H. Ellis's journal of proceedings, while on the embassy to China, with Lord Macartney in 1817. He says, "Monday, 3d of February arrived at Manilla. From a local difference in the calendar, this day proved to be Sunday with the Spaniards. This difference arises from the Spaniards in their voyage from Europe to South

America, steering a westerly course, and thereby *losing time:* while other nations in proceeding to Manilla, take an easterly direction, and thereby *gain.* Dr. Douglass's observations respecting the *old style* and *new style* in chronology, and weights and measures, are worthy of diligent perusal. So also of the trade-winds his remarks are philosophical.

His account of the *whale* and *whaling* has much interest. It informs us of some curious particulars relative to them. In the various parts of his Summary we have diversified information. He says thirty years' residence and correspondence with some inquisitive gentlemen of the several governments, and much labor and attention on his own part, enabled him to prepare the work, and contribute towards a solid foundation for future historians. He says the *origin* of the party words *whig* and *tory* was first in Scotland or Ireland. *Tory* was a name given to the *wild Irish* popish robbers, who favored the massacre of the Irish protestants in 1641. Afterwards applied to all enormous *high-fliers of the church*, affecting passive obedience and non-resistance as a prerogative of the crown. *Whig* was a ludicrous name first given to the country field-devotion meetings, whose ordinary drink was whig or whey of coagulated sour milk, and afterwards applied to those who were opposed to the *court* interest in the reigns of Charles 2d and James 2d; and *for* the court of William and George 1st.

He made liberal remarks generally about the

Rhode-Island government, failing not however to observe that their judicial oath did not invoke the judgments of the omniscient God who sees in secret, but only *upon the peril of the penalties* of perjury, and illustrates it by the story of two profligate thieves. One of them had stolen something, and told his friend of it. Well, says he, but did any body see you? No. Then says his friend, it is yours, as much as if you had bought it with your money!

He modestly conceals from us in his writings how, when and where, he received his medical diploma.

Before Dr. Douglass had completed the second volume of his Summary, he was seized with sudden and fatal illness. The Boston Evening Post of Oct. 23d, 1752, furnishes the following obituary notice. "Last Saturday morning died here, very suddenly, Dr. William Douglass, who for many years has been a physician of the first character in this town. His superior knowledge in the different branches of literature, especially those which more immediately related to his profession rendered him eminently useful to the public, and has given him a distinguished name in the learned world."

In the earlier part of his life, he lived in a house adjoining the meeting-house in Hanover-street (Welstead's.) He was the owner of the Green Dragon tavern, so called, and other valuable estates in the same street, and in Hanover-street.

The cause of his death and attendant circumstances remain undiscovered after many diligent inquiries.

The years of his life are not certainly known. Bartlett's account of medical men, read before the Medical Society in Boston, makes him to have been aged fifty-seven. To invalidate Bartlett's calculation we quote the following extract from Douglass's own work, vol. 1, p. 109: "As no man is born with the instinct or innate knowledge of his native or mother country, nor generally enters upon such researches (historical) until Æt. 25, therefore, a person not a native, but not a foreigner, who comes into any country *at that age*, and enters upon, and prosecutes such investigations from personal observations and creditable correspondences, for a course of *thirty years*, may be said as if born in the country." What is last quoted was written in 1747. He lived *four or five* years longer. Now by adding 25, 30, and 5 together, their product will be 60, which was probably the number of years of his life.

At this period we are not possessed of any evidence that Dr. Douglass ever had been a candidate for holy matrimony. Perhaps he was less censurable than censured. The asseveration of an ancient lady of correct habits, serious deportment and unclouded intellect yet living, has favored the writer of this Memoir with a few stubborn facts, heretofore stated, relative to his son. His own printed account of his mode of rearing the child, and educating the lad, convinces us of his warm attachment to him at his prattle age, (as he calls it.) As he had no near relatives of literary character, he gave his books and

manuscripts to his son, when only three years of age, in the secret hope, no doubt, that he would have literary taste and opportunity of indulging it, at mature age. But alas! the parent was not permitted to live to give his darling child the superior advantages which he had planned, and fondly anticipated. Dark and mysterious are the ways of the Almighty. It becomes us to bow lowly at his footstool, in token of our submission; and acknowledgement that "our ways are not like his ways, nor our thoughts as his thoughts."

Notes and Illustrations.

[1.] From records in the probate office in Boston it appears George Douglass, portioner of Gifford, and factor for John Marquis of Tweedale, died leaving issue, three sons, viz.: *Cornelius*, *William*, and *George*, and one daughter named *Catharine*. *George* died young, unmarried. *Cornelius* the eldest son married, and left a son Cornelius, who inherited the estate of his uncle, Dr. William Douglass, jointly with *Catharine Kerr*, who afterwards married ——— Robinson, in Boston. Cornelius, the father, is also called surgeon at Gifford and portioner.

[2.] Vid. pamphlet, "Friendly Debate." p. 20.

[3.] The pamphlets published pro. and con. at Boston, are preserved in a small 12mo. volume in the public library. The following is a list of them, viz.: Zabdiel Boylston's Historical Account published in Boston, New-England, 12mo. 1721—Benjamin Colman's Observations on Inoculation, 16mo.—Do. in favor of do., 16mo. 1721—Inoculation of the Small Pox, as practiced in Boston, considered, 16mo. 1722—Practical History of a new Epidemic and Eruptive Fever, 8vo. Boston, 1736—Cotton Mather, D. D. Letter in Defence of Inoculation, &c. 16mo. Boston, 1721—Remarks on a pamphlet on do. 16mo. Boston, 1721—*Friendly Debate*, Dialogue between Rusticus and Academus, 16mo. Boston, 1722—*Abuses* and *Scandals* of some late pamphlets, &c. 16mo.—Postscript to do., &c. obviated, 16mo. 1722—*John Williams's* Argument, against Inoculation, 16mo. 1721—Answer to Pamphlet, &c. 16mo. 1722—Vindication of the Ministers of Boston, &c. 16mo. 1722.

[4.] Dr. Cutler in a letter to Dr. Zachary Grey of London, dated May 30th, says, "The Small Pox is now overspreading this town, (Boston,) and strikes terror into the whole country. The contagion has proved mortal to many, and has therefore inclined great numbers to venture upon inoculation, which has been attended with great success. I have submitted my wife and seven children and a servant to the practice. The most visible effect of this affliction is *to set us in parties*. The main of the church are against it; and it seems that he is no Churchman or Christian who is for it.

[5.] Doct. Dal'Honde's deposition was published at length in Hutchinson's History of Massachusetts. He was an intimate acquaintance of Dr. Douglass, and gained considerable patronage as a physician. Dr. John Sprague the elder, who married Dal'Honde's daughter, was a pupil of Dr. Douglass at the time of his death. After-

wards he finished his studies with Dal'Honde. During that time, by mere inadvertence, he offended his preceptor, and was censured severely. Sprague pocketed the affair for a while, till he could balance the account to his mind. Dal'Honde was in the habit of riding about the town a favorite mare. On a certain Saturday the beast made a false step and fell with him in the street. He was much alarmed, and directed Sprague to write a note, to be read at Dr. Sewall's meeting the next day. The young man wrote it to please himself, as follows:

Lawrence Dal'Honde desires your prayer
For falling off his little dumb mare.
He breaked no bone, nor bruised no meat,
He isn't very bad; he wont die yet.

[6.] See the records of the Society.

[7.] Dr. James Stewart was a near relative of the Earl of Bute, and brother or other near relative to Lady Montague, who had not long before returned from Turkey, where her eldest child had been very successfully inoculated for the Small Pox. Her high rank in society, and celebrity as a patroness of inoculation induced the Princess of Wales to interest herself in the practice, and had her own children inoculated soon after. Dr. Douglass says "Mr. Amyand Serj. Surgeon was ordered to ingraft the Small Pox on the Princess Amelia, Æt. 11, and Princess Caroline Æt. 9; they had them favorably." Dr. Boylston was in London *afterwards*, and urged to publish his account of inoculation at Boston in 1721, and as a further inducement to print the work, he had her permission to dedicate it to her. These facts seem to account for the dedication of Douglass's Practical Essay on the Small Pox in 1721, *to Dr. James Stewart in London*, although it was printed in Boston. Dr. Stewart was also *then* one of the king's physicians. We may also surmise that Dr. Douglass had some jealousy of the apparent patronage bestowed on Dr. Boylston as principal inoculator in America, and had a desire to show to his readers, both here and in Europe, his correspondents of high literary standing, although they should not be of a princely grade.

[8.] Dr. Douglass's *Dissertation* on Inoculated Small Pox must have been printed privately *in London* in 1730, although dedicated to his friend John Jekyll *in Boston*, by W. Innys's at the west end of St. Paul's church-yard, as appears by Innys's advertisement of certain books printed on the last page of Douglass's pamphlet for sale. One of them was Fuller's Extemporaneous Practice, 4th edition, which had not been printed earlier. It is probable Mr. Innys was directed to print it in a handsome manner, (large type, but without date, place, or name of the author,) yet he betrayed the secret by his advertisement

on the last page. It appears also from Nichols's Illustrations, vol. 1, A. D. 173–, "In this year, several valuable books were produced from the press of Mr. Bayer: 'A Practical Essay concerning the Small Pox by Wm. Douglass, M. D., to which is added, a Dissertation concerning Inoculation. &c. 8vo.'

[9.] In 1757 the Small Pox was very rife in Halifax, Nova-Scotia. At that period one of the principal ladies, then being far advanced in pregnancy, (6th month) wrote as follows to her friend in New England: "When the Small Pox began to spread, it was not convenient for Mr. ——— to leave Halifax, as the court was about sitting, and I did not choose to leave him. I can't say I was in that great terror of it as I have been. I proposed to several surgeons to inoculate me, but they declined it, imagining I might possibly escape, if I confined myself to the house, which I have done for some months past, excepting when I was with my next door neighbor, poor Mrs. —— in her travail. The Small Pox appeared thick upon her a few hours before she was delivered of twins. One of them was dead born. She died the next day. The other twin had the Small Pox a week after. Several very near to me had died of it, and I think I have been in as great danger as I can be. I have been very ill this month past, seized with a violent fever, though it soon went off, but left me extremely weak, with a most terrible cough, that I am hardly able to write." This letter was dated in Dec. 1757. The writer of it from the necessity of the case was inoculated, and passed through it without any distressing circumstances occurring. Her offspring perished in embryo, but her health was restored in due time.—*Manuscript.*

[10.] Vide Mon. Nontraye's Travels in the Levant and this Country, 3d vol. folio.—Also, Philosophical Transactions, 1757, No. 71.—Also, the Gentleman's Magazine, No. 27, p. 406.—Also, Infancy, a Didactic Poem, by Dr. Dawnman.

> "She hath been the cause
> Of heart-felt joy to thousands—thousands live,
> And still shall live, through her."

The Plain Dealer, No. 30, July 3d, 1721, has a panegyric, which precludes the necessity of any other. It is an observation of some historian that England has owed to woman the greatest blessing she has been distinguished by; in the case we are now upon this reflection will stand justified. We are indebted to the reason and the courage of a lady for the introduction of this art, which gains such strength in its progress, that the memory of its illustrious foundress will be rendered sacred by it to future ages. Vide Memoirs of Lady Montague and her poems.

How am I chang'd! Alas! how am I grown
A frightful spectre, to myself unknown!
Where's my complexion? where my radiant bloom,
That promis'd happiness for years to come?

In 1736 Dr. Franklin lost one of his sons, aged four, by the natural Small Pox. He writes, "I long regretted him bitterly, and still regret that I had not given it to him by inoculation. This I mention for the sake of parents who omit that operation, on the supposition that they should never forgive themselves if a child died under it: my example showing that regret may be either way; and therefore the safer should be chosen." In page 178 of his Memoirs we find the following observations, which *time must test.* It is now more than a century since inoculation was introduced into Europe and America. And it is so far from being general at present that it will perhaps require one or two centuries to render it so. The same probably will be the case with respect to the *vaccine* inoculation, although undoubtedly its progress has hitherto been more rapid.

[11.] The fatality of the disease, (throat distemper,) at first in New Hampshire, was truly terrific. A pamphlet printed in Boston, for *Eleazer Russell*, in Portsmouth, in 1736, is yet in preservation. From it we learn the number and ages of those who died in the few towns then scourged by it.

[12.] Dr. Francis Archbald, Dr. Kennedy and Dal'Honde, three of his intimate friends. The first came to Boston a few years before him, and the two first had been surgeons in British ships of war, on the North American station; and Dal'Honde had been an army surgeon in Italy, as Gov. Hutchinson states in his History. Archbald and Kennedy were professedly of the Independent or Congregational persuasion. Dr. Douglass seemed to have adopted the opinion of Mr. Locke, as stated by him in a letter to (Rev.) Mr. Bold, dated *Oates*, May 16, 1699, in which he says, "I design to take my religion from the Scriptures, and then, whether it suits or suits not any other denomination, I am not much concerned; for I think at the last day, it will not be inquired whether I was of the Church of England or Geneva, but whether I sought and embraced truth in the love of it.

[13.] On a du meme auteur un lettre au docteur Wagstaff sur l'inoculation public en 1722, et un traitè sur l'hydrocele qui parut vers 1755. Ces ècrits sont en Englais.

[14.] His grand-father was George Douglass, a portioner of Gifford, in the County of Haddington, near Edinburg. He is also called (in recorded depositions) factor for John Marquis of Tweedale. He left three sons, *Cornelius*, *William*, and *George*. The latter died young, unmarried. Also, one daughter, named Catharine, afterwards

married to ——— Kerr, who left only one child, named Catharine. Cornelius, the eldest son, was a surgeon and portioner of Gifford. Cornelius, the grand-son of George Douglass and Catharine Kerr, appeared in 1753, and were allowed to take peaceable possession of all his real estate. In 1748 Dr. Douglass signed a deed to his natural son William Douglass, in consideration of the love and good will he had for him of *all his books, manuscripts, household furniture and his negro man Abba.* This deed was acknowledged in 1751, and delivered to Mr. ——— Smybert, the painter in 1752. As the heirs at law of Dr. Douglass were neither of them literary characters, we may readily account for his giving to his son all his books and valuable manuscripts and papers. But we are left to conjecture wherefore he forbore to make a deed of any part of his real estate to his child, then only three or four years of age. The *Green Dragon Tavern* in his inventory is called *his mansion house.* The amount of his estate, exclusive of his book debts, as by appraisal, 3184*l.* 17*s.* 10*d.*

[15.] Madam Turell, aged 92, says her father ——— Morey was an intimate acquaintance of Dr. Douglass, and owner of a large landed estate in Pomfret in Connecticut, where Dr. Douglass was interesting himself to encourage the settlement of the town afterwards called by his name. Each of them subscribed liberally towards the erection of a meeting-house. At this time they were journeying from Boston to Pomfret, and put up for the night at Captain Hill's, a settler there, and before retiring to rest the family were called together, and Dr. Douglass made the prayer.

[16.] See the proceedings of the General Court, 1753. Cornelius Douglass, the administrator on his uncle's estate, presented a petition to the Legislature praying for aid from the government in completing and publishing said map. The committee reported unfavorably to the petitioner. At this day (1831) we do not know the accuracy used in preparing the map; but it has lately been said that the Rev. William Gordon, D. D. author of the first published History of the American War, valued it highly, and had it in his possession, at or about the time he left the United States. In vol. 1, p. 404, in a note he says, "In my amusement hours I have composed the actual surveys (as upon record) of each township and district in the colonies of *New England*, into a plan of about three and a half feet square, by a scale of five miles to one inch. This plan of many years collecting, and perfected at a considerable charge, is a free gift, for a public benefit to the provinces of New England. Each township or district is to have a copy gratis, to be lodged in the town clerk's office."